atlas.ti
QUALITATIVE
DATA ANALYSIS

ATLAS.ti 7
User Guide and Reference

ATLAS.ti 7 User Manual

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About This Manual

This manual describes the concepts and functions of ATLAS.ti 7.

It is not required that you read the manual sequentially from first page to last. Feel free to skip sections that describe concepts you are already familiar with, jump directly to sections that describe functions you are interested in, or simply use it as a reference guide to look up information on certain key features.

For users with no prior knowledge of ATLAS.ti, we do, however, recommend that you especially read through the first part of this manual in order to become familiar with the concepts used by ATLAS.ti and to gain an overview of the available functions. These are the chapters: "The VISE Principle," "Main Concepts and Features," and "Main Workspace: The HU Editor."

Further, to set up a project, we recommended that you read about the "Main Steps in Working with ATLAS.ti" and "Preparing Primary Documents." For all basic-level work like creating quotations, coding, and writing memos, consult the chapters under the main heading: "The Data Level - Basic Functions." Advanced functions are described under: "Data Analysis and Theory-Building Tools."

The sequence of the chapters follows the steps that are necessary to start and work on an ATLAS.ti project:

First, the main concepts that ATLAS.ti utilizes are explained; then an overview of all available tools is provided. These introductory and more theoretically-oriented parts are followed by more practically-oriented chapters providing step-by-step instructions. You will learn how to manage your data, how to set up and start a project, and how to prepare and edit documents.

After a project is set up, the basic functions like coding, text search, auto-coding, writing memos, etc. become relevant. Conceptual-level functions like the Network Editor, the Query Tool and Co-occurence Explorer build on the data-level work (at least in most cases) and are therefore described last.

The chapter "Resources"offers some useful advice on how to get support and where to find further information on the software.

How To Use This Manual

This manual is predominantly intended for:

- Those who have no prior knowledge of ATLAS.ti
- Those who have worked with a previous version, ATLAS.ti 5 or 6.

There is no need for users with prior knowledge to read through the entire manual. However, we highly recommend that they still read the following sections/chapters:

- "Main Concepts and Features"
- "Main Workspace: The HU Editor"
- "Supported Formats"
- "Data Management in ATLAS.ti"
- "Setting Up a New Project"
- "Project Backup"
- "Coding Techniques"
- "Family Life"
- "Working with Memos"
- "Data Analysis and Theory-Building Tools"
- "Network Views"
- "Creating Reports with the XML Converter"

Some general familiarity with concepts and procedures relating to the Windows operating system and computing in general (e. g., files, folders, paths) is assumed.

This is largely a technical document. You should not expect any detailed discussion of methodological aspects of qualitative research other than cursory statements from this manual.

To those seeking in-depth instruction on methodological aspects, and how to put ATLAS.ti to practical use in an actual research/project environment, we highly recommend the following book: Dr. Susanne Friese: Qualitative Data Analysis with ATLAS.ti.

Also, the ATLAS.ti Training Center offers a full complement of dedicated ATLAS.ti training events worldwide, both through online courses and face-to-face seminars in nearly all parts of the world. Visit the Training Center at http://training.atlasti.com.

Manual Conventions

Notes

Margin notes:

Margin notes contain important observations of a general nature.

This paragraph contains a general note that may be of interest or worth remembering.

Tip/Recommendation

This paragraph contains a tip or recommendation, i. e., something we advise you to make a practice in your work.

Caution

This paragraph contains a warning or caution, i. e., something you should avoid doing or be aware of consequences beyond the action itself.

Instruction

This paragraph contains an instruction, i. e., something you should follow along and/or execute in the program.

Additional resources/Suggested further reading

Additional information about this topic is available elsewhere, usually online from our web site or some other place on the Web.

Introduction

ATLAS.ti is a powerful workbench for the qualitative analysis of large bodies of textual, graphical, audio, and video data. It offers a variety of tools for accomplishing the tasks associated with any systematic approach to unstructured data, i. e., data that cannot be meaningfully analyzed by formal, statistical approaches. In the course of such a qualitative analysis, ATLAS.ti helps you to explore the complex phenomena hidden in your data. For coping with the inherent complexity of the tasks and the data, ATLAS.ti offers a powerful and intuitive environment that keeps you focused on the analyzed materials. It offers tools to manage, extract, compare, explore, and reassemble meaningful pieces from large amounts of data in creative, flexible, yet systematic ways.

The VISE Principle

The main principles of the ATLAS.ti philosophy are best encapsulated by the acronym VISE, which stands for *Visualization, Integration, Serendipity,* and *Exploration.*

Visualization

The visualization component of the program means directly supports the way human beings (this includes researchers!) think, plan, and approach solutions in creative, yet systematic ways.

Tools are available to visualize complex properties and relations between the objects accumulated during the process of eliciting meaning and structure from the analyzed data.

The *object-oriented* design of ATLAS.ti seeks to keep the necessary operations close to the data to which they are applied. The visual approach of the interface keeps you focused on the data, and quite often the functions you need are just a few mouse clicks away.

Integration

Another fundamental design aspect of the software is to integrate all pieces that comprise a project, in order not to lose sight of the whole when going into detail.

Therefore, all relevant entities are stored in a container, the so-called "Hermeneutic Unit (HU)." Like the spider in its web, the HU keeps all data within reach. Loading a project with hundreds of files is merely a matter of opening a single HU.

Serendipity

Webster's Dictionary defines serendipity as "a seeming gift for making fortunate discoveries accidentally." Other meanings are: Fortunate accidents, lucky discoveries. In the context of information systems, one should add: Finding something without having actually searched for it.

The term "serendipity" can be equated with an intuitive approach to data. A typical operation that relies on the serendipity effect is *browsing*. This information-seeking method is a genuinely human activity: When you spend a day in the local library (or on the World Wide Web), you often start with searching for particular books (or key words). But after a short while, you typically find yourself increasingly engaged in browsing through books that were not exactly what you originally had in mind.

Examples of tools and procedures ATLAS.ti offers for exploiting the concept of serendipity are the Object Managers, the HU Explorer, the interactive margin area, full text search, and the hypertext functionality.

Exploration

Exploration is closely related to the above principles. Through an exploratory, yet systematic approach to your data (as opposed to a mere "bureaucratic" handling), it is assumed that especially constructive activities like theory building will be of great benefit. The entire program's concept, including the process of getting acquainted with its particular idiosyncrasies, is particularly conducive to an exploratory, discovery-oriented approach.

Areas Of Application

ATLAS.ti serves as a powerful utility for qualitative analysis, particularly of larger bodies of textual, graphical, audio, and video data. The content or subject matter of these materials is in no way limited to any one particular field of scientific or scholarly investigation.

Its emphasis is on qualitative, rather than quantitative, analysis, i. e., determining the elements that comprise the primary data material and interpreting their meaning. A related term would be "knowledge

management," which emphasizes the transformation of data into useful knowledge.

ATLAS.ti can be of great help in any field where this kind of "soft data" analysis is carried out. While ATLAS.ti was originally designed with the social scientist in mind, it is now being put to use in areas that we had not really anticipated. Such areas include psychology, literature, medicine, software engineering, quality control, criminology, administration, text linguistics, stylistics, knowledge elicitation, history, geography, theology, and law, to name just some of the more prominent.

Emerging daily are numerous new fields that can also take full advantage of the program's facilities for working with graphical, audio, and video data. A few examples:

- Anthropology: Micro-gestures, mimics, maps, geographical locations, observations, field notes
- Architecture: Annotated floor plans
- Art / Art History: Detailed interpretative descriptions of paintings or educational explanations of style
- Business Administration: Analysis of interviews, reports, web pages
- Criminology: Analysis of letters, finger prints, photographs, surveillance data
- Geography and Cultural Geography: Analysis of maps, locations
- Graphology: Micro comments to handwriting features.
- Industrial Quality Assurance: Analyzing video taped user-system interaction
- Medicine and health care practice: Analysis of X-ray images, CAT scans, microscope samples, video data of patient care, training of health personal using video data
- Media Studies: Analysis of films, TV shows, online communities
- Tourism: Maps, locations, visitor reviews

Many more applications from a host of academic and professional fields are the reality. In fact, we encourage all users to let us know about the specific use they are making of ATLAS.ti in their area or work. You can always reach us via the ATLAS.ti Support Center at http://support.atlasti.com.

ATLAS.ti offers support to the researcher - without taking control of the intellectual process.

The fundamental design objective in creating ATLAS.ti was to develop a tool that effectively supports the human interpreter, particularly in handling relatively large amounts of research material, notes, and associated theories.

Although ATLAS.ti facilitates many of the activities involved in qualitative data analysis and interpretation (particularly selecting, indexing/coding, and annotating), its purpose is not to automate these processes. Automatic interpretation of text cannot succeed in grasping the complexity, lack of explicitness, or "contextuality" of everyday or scientific knowledge. In fact, ATLAS.ti was designed to be more than a single tool—think of it as a professional workbench that provides a broad selection of effective tools for a variety of problems and tasks.

Teamwork Support

ATLAS.ti facilitates co-authoring, i. e., it allows two or more researchers or work groups to work on the same project, albeit asynchronously. This means each person works on his or her own project file. Access to the same data source is possible. The sub-projects are then merged into one comprehensive MASTER project. ATLAS.ti provides the tools that allow for the transfer and

conversion of research data while keeping the respective sources of ideas identifiable at all times.

Main Concepts And Features

The concepts of primary documents, quotations, codes, and memos are the overall foundation you need to be familiar with when working with ATLAS.ti, complemented by a variety of special aspects such as families, network views (=the main visualization tool), and analytical/data querying tools. All of these come together in the overall "project container," The Hermeneutic Unit (HU, for short).

The Hermeneutic Unit (HU)

The Hermeneutic Unit (HU), provides the data structure for each project in ATLAS.ti. The name was chosen to reflect the initial approach taken when building a support tool for data interpretation. There was no intention to intimidate users with this admittedly tongue-twisting name.

Acquaint yourself with this general "container" concept and its implications. Once you understand the HU concept, you understand almost everything that is necessary to work with ATLAS.ti. And in spite of its impressive name, it is really simple and practical to use.

Everything that is relevant to a particular project (e. g., a research topic) is part of the HU and resides in the digital domain. For instance, the Primary Documents, i. e. the data you are analyzing, the quotations, the codes, the conceptual linkages (families, networks), and the memos, etc., are all part of one HU.

One obvious advantage of this container concept is that the user only has to deal with and think of one entity. Activating an HU is the straightforward selection of a single file; all associated material is then activated automatically.

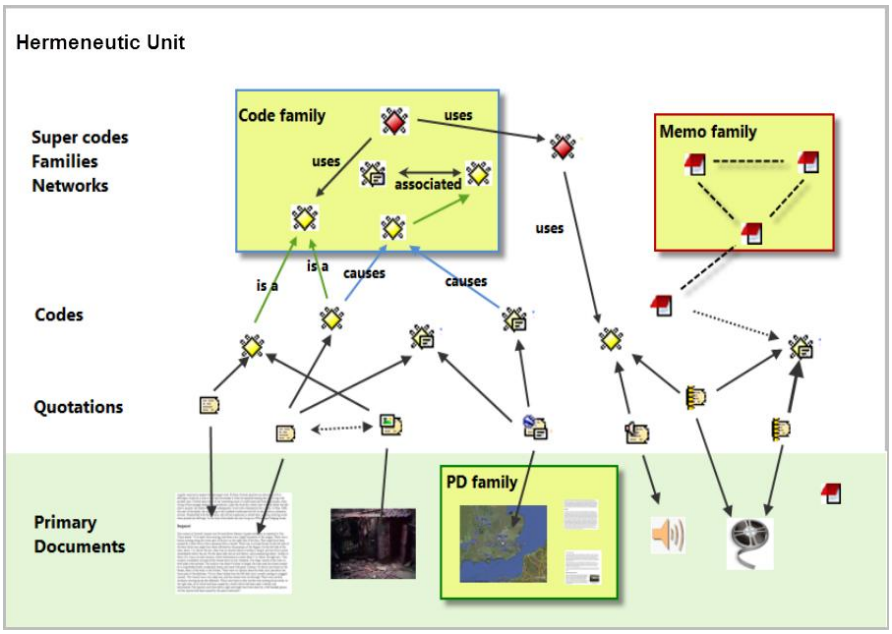


Figure 1: The hierarchy of objects inside a Hermeneutic Unit

The most basic level of an HU consist of the Primary Documents, followed closely by the "quotations" (= selections from the Primary Documents). On the next level, codes refer to quotations. Memos - you meet them everywhere.

An HU can become a highly connected entity, a dense web of primary data, associated memos and codes, and interrelations between the codes and the data. To find your way through this web, ATLAS.ti provides powerful browsing, retrieval and editing tools.

Primary Documents (PD Or PDoc)

Primary Documents represent the data you have added to an ATLAS.ti project. These can be text, image, audio, video or geographic materials that you wish to interpret.

Primary Document Families (Data Attributes)

Families in ATLAS.ti are a group of objects (see the entry “Families” below). Primary document families fulfill a special function as they can be regarded as quasi dichotomous variables. You can group all female interviewees into a PD family named “female,” all male interviewees into a PD family named “male.” You can do the same for different professions, marital status, education levels,

etc. The classification is a 0/1 classification: "1" meaning the document is part of a particular group; "0" meaning it is not part of the group.

Following a special syntax, you can also create PD families that can be imported or exported as variables with two or more characteristics based on an Excel table like Gender::male and Gender::female.

PD Families can be later used to restrict code-based searches like: "Show me all data segments coded with 'attitude towards the environment' but only for females who live in London as compared to females who live in the country side."

You can also use PD families as a filter, for example to reduce other types of output, like a frequency count for codes across a particular group of documents. See the chapter on "Working with Variables: Primary Document Families" below.

Quotations

A quotation is a segment from a PD that is interesting or important to the user. In textual documents, a quotation is an arbitrary sequence of characters ranging in length from a single character, to a word, a sentence, or a paragraph, even up to the entire data file.

Free quotations resemble passages "scribbled" on the margin of a book.

Usually, quotations are created manually by the researcher. However, if repetitive words or phrases are contained in the text, the Auto-Coding feature can be used to automatically segment these quotations and assign a code to them.

When a quotation is created, ATLAS.ti automatically assigns an identifier to it. This identifier is built from the index of the primary text to which it belongs and the first 30 letters (note that a different length can be set via Preferences) of the text segment, e. g., "1:21 Therefore a more efficient fil....". The identifier is displayed in list windows and printouts. For graphic, audio, and video segments, the original file name of the PD is chosen as an identifier.

Although the creation of quotations is almost always part of a broader task like coding or writing memos, "free" quotations can be created that indicate interesting parts in the primary data for which a meaningful classification has not yet been found ("The Data Level - Basic Functions."

Quotations As Layers

Quotations can be regarded like a transparent layer on top of a document. Technically speaking, a quotation consists of the identifier (a number) and a pair of coordinates that specify the beginning and end of the quotation. The content of a PD file (the data source) is therefore not altered by the creation, deletion, or modification of quotations.

Quotations are stored inside the HU, independent of the document to which they belong.

Additional reading: http://downloads.atlasti.com/library/Maietta_2009-05_6.pdf

Types Of Quotations

There are six different types of quotations (corresponding with the six different types of formats ATLAS.ti accepts) :

Text Quotations

A textual quotation originates from an arbitrary sequence of selected characters.

Textual quotations represent (for the computer) a sequence of characters ("strings") and can be of arbitrary size. Sentences, speech turns, or paragraphs are often the basis for the length of textual quotations. Only text offers enough "syntactical clues" to allow for searches for the occurrence of specific evidence that may support a concept. Text also offers the option for automatic segmentation as used by the Auto-Coding procedure ("The Auto-Coding Tool").

Graphic Quotations

The creation, activation, and display of graphical quotations has similarities with, but also differs from, their textual counterparts.

A graphical quotation is a rectangular region inside a graphical PD. From its data structure, it is identical to textual quotations, since their main attributes are also the PD identifier and two coordinates that mark the beginning and end, defining a rectangle through its upper left and lower right corner.

Handling graphical quotations is largely analogous to marking text passages in a textual document ("Creating and Working with Graphical Quotations."

PDF Quotations

PDF quotations can be of a textual or of a graphical nature. The quotation references for textual quotations indicate the page number and the start and end position on the basis of character counts. For example: (31:1537-31:1745) means that this quotation is from page 31, starting at character 1537 and ending at character 1745. The reference for coded images indicates the position of the quotation within the PDF file, like (@422-@618) ("Creating and working with Textual and PDF Quotations."

Audio And Video Quotations

Audio and video quotations can be as short as a few milliseconds. The length of a quotation is selected on a time line. Segment starting points and length are displayed in the following formats:

milliseconds / HH:MM:SS:ms / frames (for videos)

See "Creating and Working with Multimedia Quotations."

GoogleEarth (GE) Quotations

When creating a GE quotation, you see the ATLAS.ti icon on the GE map. It is linked to one location and thus is different from all other types of quotations that present a range. The quotation ID shows either the name of the document or the feature's name (if applicable). In addition the geographic reference of the marked location is provided (see "Creating and Working with Google Earth Quotations").

Additional reading (Working with GoogleEarth data): http://downloads.atlasti.com/library/Cisneros_2009-03_17.pdf

Codes

The term code is used in many different ways. First, we would like to define what that term means in qualitative research, and then in ATLAS.ti.

Coding Objectives

From a methodological standpoint, codes serve a variety of purposes. They capture meaning in the data. They also serve as handles for specific occurrences in the data that cannot be found by simple text-based search techniques.

Codes are used as classification devices at different levels of abstraction in order to create sets of related information units for the purpose of comparison (e. g., a concept like "Coping Strategy").

Keep code names brief and succinct. Use the comment pane for longer elaborations.

From a "low level" tool perspective, codes are typically short pieces of text referencing other pieces of text, graphical, audio, or video data. Their purpose is to classify an often large number of textual or other data units.

In the realm of information retrieval systems, the terms "index," "indexing," or "keyword" are often used for what we call "code" or "coding".

The length of a code should be restricted and should not be too verbose. If textual annotations are what you want, you should use quotation comments instead.

The technical aspects of coding are described in the section "Coding Techniques."

Text Search Tool

From simple string matching to sophisticated pattern match (GREP) and category search, all is available in the Text Search Tool (see section The Text Search Tool).

Word Cruncher

The Word Cruncher counts all words in textual PDs. The count can be limited to one PD only or include all PDs.

To clean up the count or to count only certain words, a stop and go list can be defined. The result can be displayed in form of a word cloud or an Excel table.

The result can be displayed in an Excel table (see section "The Word Cruncher").

Auto Coding Tool

If the primary text itself contains important key words, the Auto Coding Tool scans the text and automatically assigns a pre-selected code to matching text passages. If so desired, the process can be controlled by manual confirmation of each action (see section"The Auto-Coding Tool").

Memos

Memos capture your thoughts regarding the text and are an important device for creating theory. A "memo" is similar to a code, but usually contains longer passages of text.

A memo may "stand alone" or it may refer to quotations, codes, and other memos. They can be grouped according to types (method, theoretical, descriptive, etc.), which is helpful in organizing and sorting them. Memos may also be included as the objects of analysis by assigning them as PDs.

See the chapter on "Working with Memos" below. Additional reading (Memo writing):
http://downloads.atlasti.com/library/Friese_2009-09_1.pdf
http://downloads.atlasti.com/library/Friese_2008-12_8.pdf

Families

Families are a way to form clusters of PDs, codes, and memos for easier handling of groups of codes, memos, and PDs. Primary Document families can be regarded as attributes or variables (see "Family Life").

Families can be combined using logical operators similar to codes and Super Codes (see "Super Families").

Network Views

Network Views are a bit more sophisticated than families. They allow you to conceptualize the structure by connecting sets of similar elements together in a visual diagram. With the aid of Network Views you can express relationships between codes, quotations, and memos. PDs, families and even Network Views can also be "nodes" in a network view.

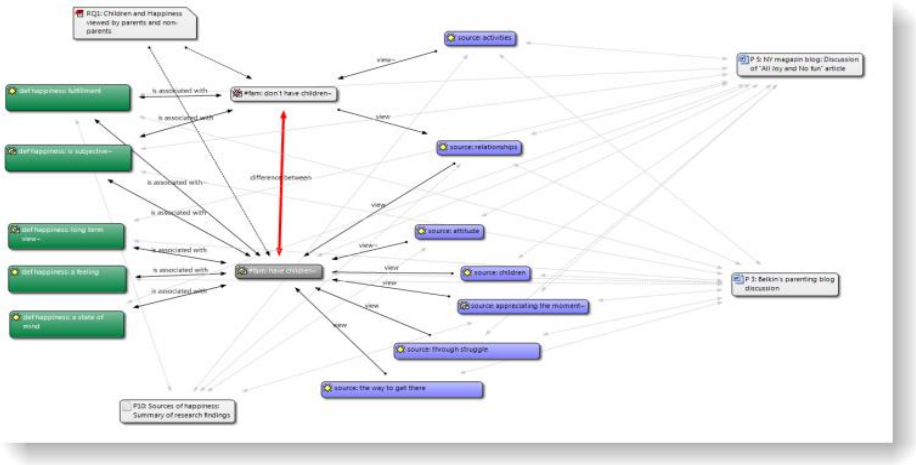

RQ1: Children and Happiness viewed by parents and non-parents
source: activities
P 5: NY magazin blog: Discussion of "All Joy and No fun" article
def happiness: fulfillment
is associated with
#am: don't have children#
def happiness: is subjective
source: relationships
different/between
def happiness: long term view
source: attitude
def happiness: a feeling
#am: have children#
source: children
P 3: Belkin's parenting blog discussion
def happiness: a state of mind
source: appreciating the moment
source: through struggle
source: the way to get there
P10: Sources of happiness: Summary of research findings

Figure 2: An example of a network view (see sample project)

Nodes, Links And Relations

A node is any object that is displayed in a Network View. You can change their look and move them around in the Network Editor.

Relations are link prototypes used to create a link between two codes or between two quotations. An example is the "is-a" (ISA) relation, which is frequently used to link concepts of different abstraction level (e. g., DOG <isa> MAMMAL).

Network View Manager

The Network View Manager contains a list of all saved Network Views previously constructed by the user. It can be used to create new Network Views, to access or delete existing ones, or to write and edit comments.

Network Editor

The Network Editor displays and offers all editing capability to construct and refine semantic networks. In addition, it allows the visual creation and traversal of hypertext structures.

Relation Editor

Should the already built-in relations that are used to connect objects in Network Views prove not sufficient, you can edit them or create new ones using the Relation Editor.

Link Managers

The Link Managers provide an overview of all code-code links and of all quotation-quotation links you have created.

You find more information on the network function under "Network Views."

Video tutorials:
Network Building (1/3): http://www.youtube.com/watch?v=7ObpQ5GMLgU
Network Building (2/3): http://www.youtube.com/watch?v=0umfcNTZqHc
Network Building (3/3): http://www.youtube.com/watch?v=JTKJ95DYA0Q
Hyperlinks: http://www.youtube.com/watch?v=R7IbSt5rpks

Analysis

ATLAS.ti contains multiple powerful, dedicated analytical tool to help to make sense of your data once it is coded.

Query Tool

For more complex search requests, the Query Tool is at your disposal. Here you can formulate search requests that are based on combinations of codes using one or a combination of 14 different operators, Boolean, semantic and proximity operators (see "Query Tool").

Super Codes

A Super Code differs from a standard code. A standard code is directly linked with the quotations to which it is associated, while a Super Code is a stored query, thus provides an answer to a question (in the best case) that typically consists of several combined codes (see "Super Families").

The Co-occurence Explorer

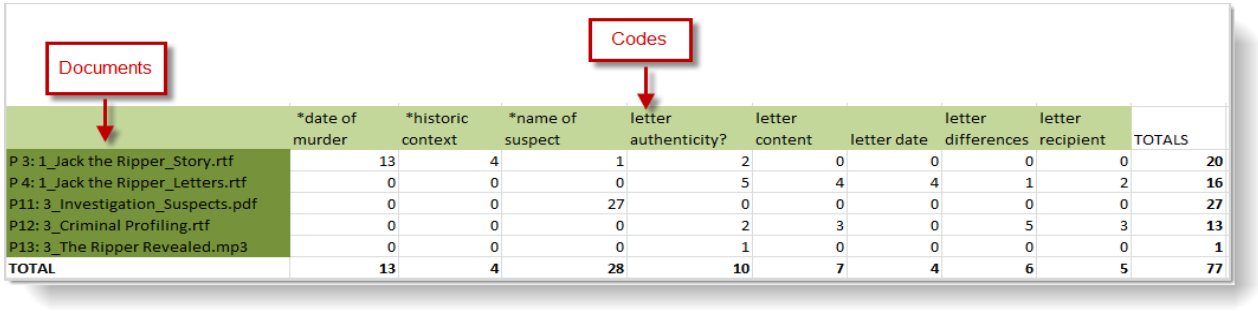
The Co-occurence Explorer is more exploratory than the Query Tool. Rather than determining the codes yourself, you can ask ATLAS.ti which codes happen to co-occur in the margin area. The output can be viewed in form or a tree view or a table view (CTE: Co-occurence Table Explorer). The CTE provides frequency of co-occurrence and a coefficient measuring the strength of the relation is calculated. Since a coefficient is only appropriate for some type of data, its display can be activated or deactivated.

It is always possible to directly access the data behind the frequency counts or coefficient.

You find this function under the **Analysis** menu. For further information, see "Code Cooccurrence Tools."

Codes-Primary Document-Table

The Codes-Primary-Document Table contains the frequency of codes across documents. Aggregated counts based on code and primary document families are also available. The table can be exported as Excel compatible table. Optionally, the table cells can also contain the word counts for the quotations per code across documents.



	*date of murder	*historic context	*name of suspect	letter authenticity?	letter content	letter date	letter differences	letter recipient	TOTALS
P 3: 1_Jack the Ripper_Story.rtf	13	4	1	2	0	0	0	0	**20**
P 4: 1_Jack the Ripper_Letters.rtf	0	0	0	5	4	4	1	2	**16**
P11: 3_Investigation_Suspects.pdf	0	0	27	0	0	0	0	0	**27**
P12: 3_Criminal Profiling.rtf	0	0	0	2	3	0	5	3	**13**
P13: 3_The Ripper Revealed.mp3	0	0	0	1	0	0	0	0	**1**
TOTAL	**13**	**4**	**28**	**10**	**7**	**4**	**6**	**5**	**77**

Figure 3: Codes-Primary-Documents Table

This option can be found under the **Analysis** menu. See "Codes-Primary Documents Cross-Tabulation."

Team Tools

Team work is a normal scenario in data analysis, and ATLAS.ti is uniquely suited for collaborative work. A number of special tools and features support efficient work in a team.

Project Library

In ATLAS.ti 7, documents are stored in a special repository called libraries. When working in a team, it is useful to create a project specific library that only team members can access instead of using the standard library.

User Administration

Manage the ATLAS.ti user database through the user administration tool. This is a prerequisite for collaborative work, but is also useful to individual users through personalizing the log-in or protecting an HU with a password.

User Management options can be found under the Tools menu. See also the chapter on "User Management."

Hermeneutic Unit Merger

This tool merges different HUs. A variety of options to control the merge strategy are offered.

You find this function under the Tools menu. Further information is provided in the chapter "Merging Hermeneutic Units."

Codings Analyzer

The Coding Analyzer is helpful after merging HUs. It tests for redundant codes, i. e., codes used more than once for data segments that overlap or are embedded in one another (see section Redundant Codings Analyzer).

Export

RTF

There are output options for each of the main objects in ATLAS.ti: Primary Documents, Quotations, Codes and Memos. You find it under the respective menus. You can output a list of primary documents along with their comments, all or selected quotations with our without comments, quotations by codes (via the Codes / Output menu), a list of all codes, code-neighbors lists, etc. For memos, you can either output just a list of your memos, the content of memos or the content including the linked objects.

PDF

You can print out coded documents as you see them on the screen with the codes in the margin area. This option is available for text, image and PDF documents and you find it under **Documents / Output / Print with Margin.**

XML Export Of Project File

The XML generator exports all information contained in an HU in XML format. This universal, open data format allows for a wide variety of possibilities for display, processing, and even integration of your data with external applications. Click on the XML button in the main tool bar to explore the options.

XML Reports

ATLAS.ti offers a number of reports via XML style sheets. If you are skilled in writing such style sheets, you can create any output you like based on the raw XML file of your ATLAS.ti project. For all others, we have put together a selection of useful reports like creating a code book, lists of all families with their members, all memos with linked quotations, overviews of the various links created in network views, quotation output by codes, etc. You find this option under **Project / Export / XML Explorer**.

SPSS Export

You can export your coded data as SPSS syntax file. When executed in SPSS, your quotations become cases and your codes and code families variables. In addition, further identifying information in form of variables is provided like the primary document number for each case, start and end position and creation date. These variables allow you to aggregate your data in SPSS if needed ("SPSS Export").

If you need a less detailed output, see „Codes-Primary Documents Cross-Tabulation." The table provides an output that is already aggregated by primary documents.

Excel Export

The frequency of codes across documents (**Codes / Output / Codes-Primary Document Table**), the results of the Co-occurence Table Explorer (**Tools / Co-occurence Tools**, and the word frequency count (see "The Word Cruncher") can be exported as Excel compatible file.

Graphic Files

Network Views can be saved as bmp or emf files: Open a network view and select **Network / Save as Graphic File**.

HTML Generator

Publishing online or just creating a printout from a project is available with the HTML generator (see **Tools / Export to: / HTML**). The results can be viewed platform-independent with any Web browser. This option can be found under the Extras menu and is best suitable for exporting your entire project. HTML preferences can be set under **Tools / Preferences / HTML Preferences ("**HTML Export").

Other Tools

Object Crawler

With the Object Crawler, you can search all of the parts of your project within ATLAS.ti that contain text. Searches are not restricted to just textual PDs: codes, memos, quotations, all families, code-code links, hyper-links, and the HU can be searched. In addition, the scope of the search can be limited to certain fields. You find the Object Crawler under the Tools menu ("The Object Crawler").

HU Explorer

The HU Explorer displays all the elements of an HU in a strictly hierarchical manner, even if the structures are non-hierarchical, or even cyclic. You find the HU Explorer under the Tools menu ("The HU Explorer").

ATLAS.ti Mobile

ATLAS.ti Mobile For Ipad And Android

ATLAS.ti, the powerful knowledge workbench, now has two companions–ATLAS.ti Mobile for iPad and Android devices. With the app you can collect and analyze data wherever you are and can take your iPad or Android device along.

Perhaps you want a work on a document while on a long train, plane or boat ride. Email it to yourself so it is available on the iPad/Android devise. Add it to an ATLAS.ti Mobile project, read it, write comments, and perform coding work.

You can later merge the result with your existing ATLAS.ti desktop project. This is explained in the sections "Exporting A Mobile Project (iPad App)" and "Exporting A Mobile Project (Android App)" and "Importing A Mobile Project to ATLAS.ti Desktop".

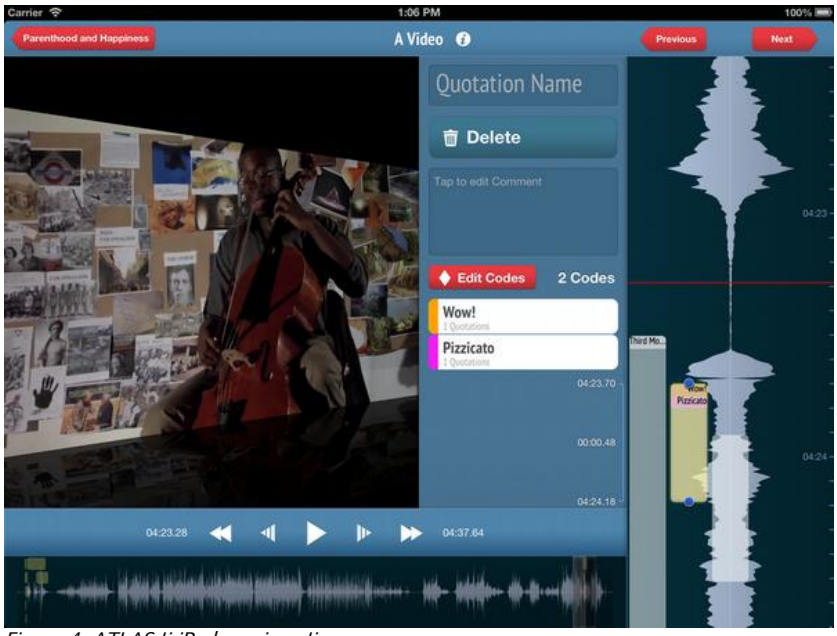


Figure 4: ATLAS.ti iPad app in action

Figure 5: ATLAS.ti Android app in action

A complete documentation of the apps is available from http://ipad.atlasti.com / http://android.atlasti.com. ATLAS.ti Mobile for iPad and Android are available FREE from the Apple app / Google Play stores.

Main Steps In Working With ATLAS.ti

The figure below illustrates the main steps of working with ATLAS.ti, starting with the creation of a project, adding documents, identifying interesting things in the data and coding them. Memos and comments can be written at any stage of the process, whereas there is possibly a shift from writing comments like adding meta information to your documents, first code nodes that later turn in to code definitions, initial thoughts about specific data segments (the ATLAS.ti quotations) to more extensive memo writing during the later stages of the analysis. Once your data is coded, it is ready to be queried using the various analysis tools provided. The insights gained can then be visualized using the ATLAS.ti network view function.

Some steps need to be taken in sequence--for instance, logic dictates that you cannot query anything or look for co-occurences if your data has not yet been coded. But other than that there are no strict rules. Network views, in addition to presenting findings, also have an exploratory component and as such can help you to see your data from a different perspective. This may provide further ideas for coding, querying or even further data collection.

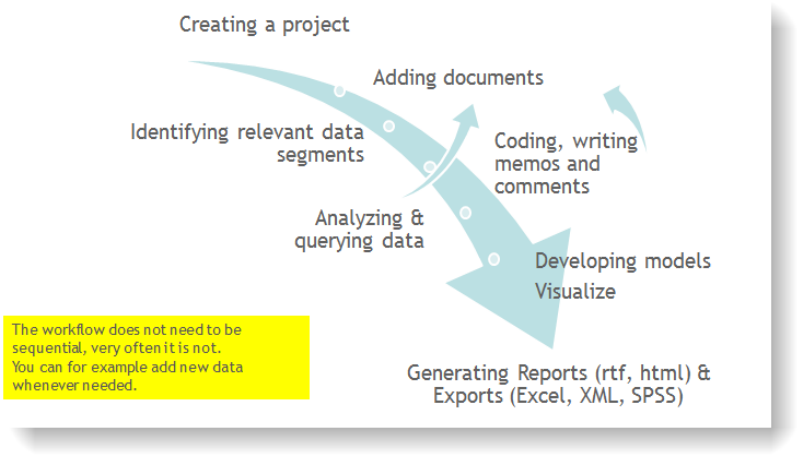

Creating a project
Adding documents
Identifying relevant data segments
Coding, writing memos and comments
Analyzing & querying data
Developing models
Visualize
The workflow does not need to be sequential, very often it is not.
You can for example add new data whenever needed.
Generating Reports (rtf, html) & Exports (Excel, XML, SPSS)

Figure 6: Main work flow

Data And Project Management

A first important but often neglected aspect of a project is data and project management. The first step is data preparation. You find more information on supported file formats in the section "Supported Formats."

Apart from analyzing your data, you also manage digital content and it is important to know how the software does it. For detailed information, see the section "Data Management in ATLAS.ti."

As a basic guide, consider the following basic questions:

- Should data be edited after it is assigned to ATLAS.ti? See the section on "Editing Primary Documents."
- Do you need data to be shared among team members? For further information on team project management see "After you have added documents to your project, save the project file (HU), to any location: Project / Save.".Where and how can you create project backups? ("Project Backup").

The Process

There are two principal modes of working with ATLAS.ti, the data level and the conceptual level. The Data Level includes activities like segmentation of data files; coding text, image, audio, and video passages; and writing comments and memos. The Conceptual Level focuses on querying data and model-building activities such as linking codes to networks, in addition to writing some more comments and memos.

Data-Level Work

Data-level research activities include segmenting the data that you have assigned to a project into quotations, adding comments to respective passages (note-making/annotating), and coding selected text passages or data segments, secondary materials, annotations, and memos to facilitate their later retrieval. The act of comparing noteworthy segments leads to a creative conceptualization phase that involves higher-level interpretive work and theory-building.

ATLAS.ti assists you in all of these tasks and provides a comprehensive overview of your work as well as rapid search, retrieval, and browsing functions.

Within ATLAS.ti, initial ideas often find expression through their assignment to a code or memo, to which similar ideas or text selections also become assigned. ATLAS.ti provides the researcher with a highly effective means for quickly retrieving all data selections and notes relevant to one idea.

Read more detail in the section on the “Data Level Basic Functions” in the full manual.

Conceptual Level Work

Beyond coding and simple data retrieval:

ATLAS.ti allows you to query your data in lots of different ways, combining complex code queries with variables, exploring relationships between codes and to visualize your findings using the network tool.

ATLAS.ti allows you to visually "connect" selected passages, memos, and codes into diagrams that graphically outline complex relations. This feature virtually transforms your text-based workspace into a graphical "playground" where you can construct concepts and theories based on relationships between codes, data segments, or memos.

This process sometimes uncovers other relations in the data that were not obvious before and still allows you the ability to instantly revert to your notes or primary data selection.

For more detail, see “Data Analysis and Theory-Building Tools.“

General Steps When Working With ATLAS.ti

The following sequence of steps is, of course, not mandatory, but describes a common "script:"

Create a project, an "idea container," meant to enclose your data, all your findings, codes, memos, and structures under a single name. We call this a "Hermeneutic Unit" (HU). A more detailed explanation is provided below (“Main Workspace: The HU Editor.“

Next, add documents, text, graphic, audio and video files, and Google Earth as so called Primary Documents (PDs) to your ATLAS.ti project. See “Adding Documents to a Project.“

Read and select text passages or identify areas in an image or select segments on the time line of an audio or video file that are of further interest, assign key words (codes), and write comments and memos that contain your thinking about the data. We call this the Data-Level working phase (“The Data Level - Basic Functions“).

Compare data segments based on the codes you have assigned; possibly add more data files to the project.

Organize PDs, codes, and memos using "Families" (see the chapter on "Family Life" for further information).

Query the data based on your research questions utilizing the different tools ATLAS.ti provides. The key words to look for are: simple retrieval, complex code retrievals using the query tool, simple or complex retrievals in combination with variables via the scope button, the co-occurence explorer (tree and table explorer), the codes-primary document table, Excel and SPSS export of frequency counts for further statistical analysis (see "Analysis Tools."

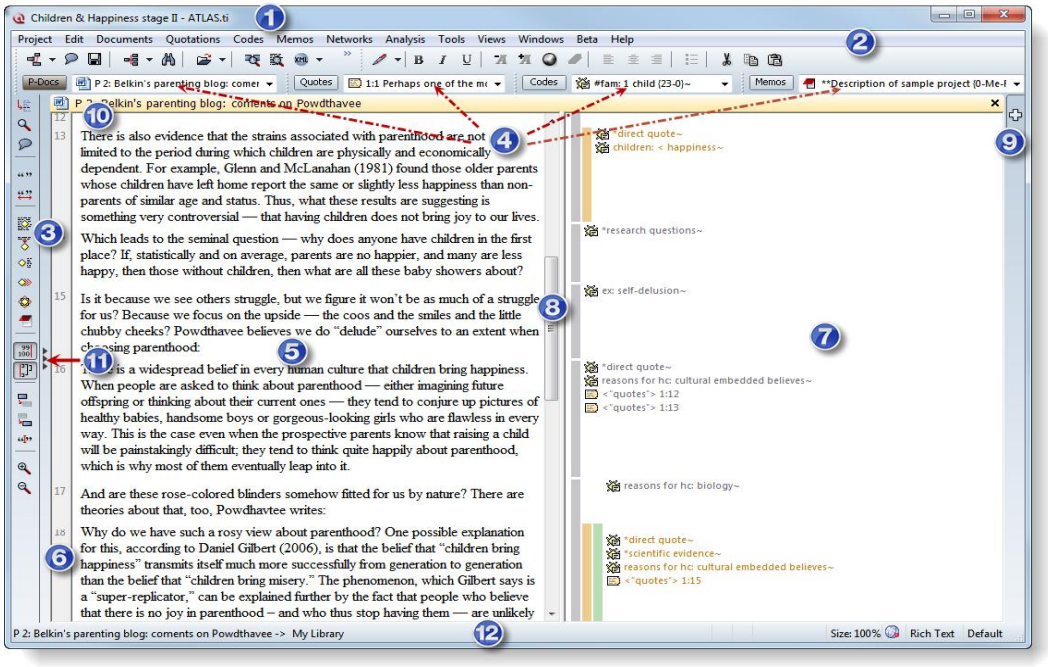
Build semantic, prepositional or terminological networks from the codes you have created. These networks, together with your codes and memos, form the framework for emerging theory. Look for the chapter "Network Views).

Finally, compile a written report based on the memos you have written throughout the various phases of your project and the networks you have created and even publish your project as a World Wide Web document or an individual presentation using XML. See "Generating Output."

Additional reading about working with ATLAS.ti:
- http://downloads.atlasti.com/library/Casasempere_2007-07_11.pdf
- http://www.qualitative-research.net/index.php/fqs/article/viewArticle/1632/3149
- http://atlasmalaysia.wordpress.com/2010/09/01/howtolr/

Main Workspace: The HU Editor

The Hermeneutic Unit (HU) Editor is the main workspace. It is opened after the start of the program, and will be your "home page" most of the time.


Children & Happiness stage II - ATLAS.ti
Project Edit Documents Quotations Codes Memos Networks Analysis Tools Views Windows Beta Help
P-Docs
Quotes
Codes
Memos
P 2: Belkin's parenting blog: comments on Powdthavee
There is also evidence that the strains associated with parenthood are not limited to the period during which children are physically and economically dependent. For example, Glenn and McLanahan (1981) found those older parents whose children have left home report the same or slightly less happiness than non-parents of similar age and status. Thus, what these results are suggesting is something very controversial — that having children does not bring joy to our lives.
Which leads to the seminal question — why does anyone have children in the first place? If, statistically and on average, parents are no happier, and many are less happy, then those without children, then what are all these baby showers about?
Is it because we see others struggle, but we figure it won't be as much of a struggle for us? Because we focus on the upside — the coos and the smiles and the little chubby cheeks? Powdthavee believes we do "delude" ourselves to an extent when
There is a widespread belief in every human culture that children bring happiness. When people are asked to think about parenthood — either imagining future offspring or thinking about their current ones — they tend to conjure up pictures of healthy babies, handsome boys or gorgeous-looking girls who are flawless in every way. This is the case even when the prospective parents know that raising a child will be painstakingly difficult; they tend to think quite happily about parenthood, which is why most of them eventually leap into it.
And are these rose-colored blinders somehow fitted for us by nature? There are theories about that, too, Powdhavtee writes:
Why do we have such a rosy view about parenthood? One possible explanation for this, according to Daniel Gilbert (2006), is that the belief that "children bring happiness" transmits itself much more successfully from generation to generation than the belief that "children bring misery." The phenomenon, which Gilbert says is a "super-replicator," can be explained further by the fact that people who believe that there is no joy in parenthood – and who thus stop having them — are unlikely
*direct quote~
children: < happiness~
*research questions~
ex: self-delusion~
*direct quote~
reasons for hc: cultural embedded believes~
<"quotes"> 1:12
<"quotes"> 1:13
reasons for hc: biology~
*direct quote~
*scientific evidence~
reasons for hc: cultural embedded believes~
<"quotes"> 1:15
P 2: Belkin's parenting blog: coments on Powdthavee -> My Library
Size: 100%
Rich Text
Default
1
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8
9
10
11
12

Figure 7: The HU Editor with activated line numbers and margin area.

The HU Editor serves as the main editing tool and offers access to all other workbench tools.

You can decide which parts of the window to display and customize its appearance to your needs. Use the **Views** menu to hide some of the buttons, windows, etc.

Components Of The HU Editor

The numbers in brackets refer to the figure above showing the HU editor.

Title Bar [1]

The *title bar* is common to all windows and dialog boxes. It displays the name of the HU that is currently being edited.

Main Menu And Tool Bars [2]

The main menu below the title bar offers access to the different kinds of objects that populate an HU. Commands found in the main menu are often also available from context menus and toolbar buttons.

Tool bars offer functions that are generally also available as menu commands. A short "tool tip" help text is displayed when the mouse pointer rests on a tool button.

The Edit options in the tool bar are available only when an *editable* Primary Document (PD) is displayed. The tools from the Editing Toolbar can be used after entering edit mode. The various options are explained further in the section on "Editing Primary Documents."

The Primary Document Tool Bar [3]

The PD toolbar is to the left of the PD pane. Note that it is disabled unless a document is loaded.

Object Drop-Down Lists [4]

Below the main toolbar, you find four *drop-down lists* that contain the HU's main entities. From left to right, these are the drop-down lists for: **PDocs**, **quotations**, **codes**, and **memos**.

Click into the entry field or the little drop-down arrow on the right to select an object. Click the button to the left of the entry field to open an Object Manager.

Primary Document Pane [5]

The dominant window pane in the HU Editor is the *Primary Document Pane*. This pane is the central workspace where text or graphic material is reviewed, marked, coded, and annotated. It is usually augmented by the Paragraph number pane when text documents are loaded [8] and the margin area [9].

Paragraph Number Area [6]

To the left of the text area, **paragraph numbers** can be displayed. Technically a hard return in text document is interpreted as paragraph.

Margin Area [7]

To the right hand side of the PD area is the optional **margin area**. Bars are used to indicate quotations. Attached codes, memos, and hyperlinks are displayed next to the quotation bars. The margin area is fully interactive: the displayed objects are sensitive to mouse clicks and have their own context menus. In addition, a variety of drag-and-drop options are possible. See " Margin Drag & Drop" for more detail.

You can resize the margin area using the split bar [10] between the PD pane and the margin pane.

When you double click on a code in the margin area, a comment field pops up showing the code definition if you have written one.

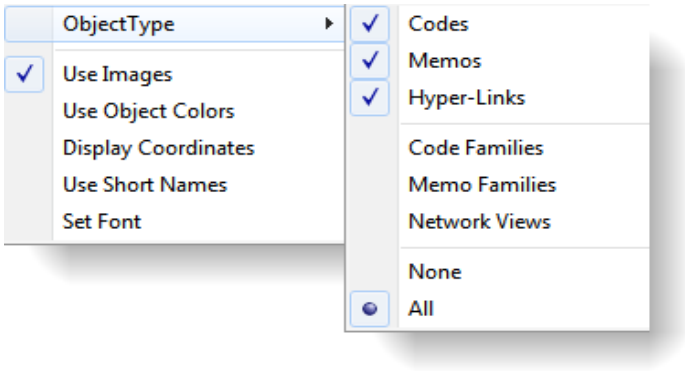


Figure 8: Margin area context menu

A general context menu can be opened inside the margin area by moving the mouse pointer onto the background between the objects. It allows you to set display properties of the objects.

Margin Area Preferences

Several individual preferences can be set for the margin area: the kind of objects shown, whether icons should be used, whether in-place editing should be allowed, etc. In order to set your individual preferences:

Select **Tools / Preferences / General Preferences** (or use the "wrench" button) and then select the Margin tab.

Windows Splitter [8]

Use the windows splitter to resize the PD pane and margin area.

Region Button [9]

When you click on the plus sign on the right hand side of the editor, you can open up three more regions for the display of documents. Thus, you can view (and work on) up to four documents side-by-side.

Document Bar [10]

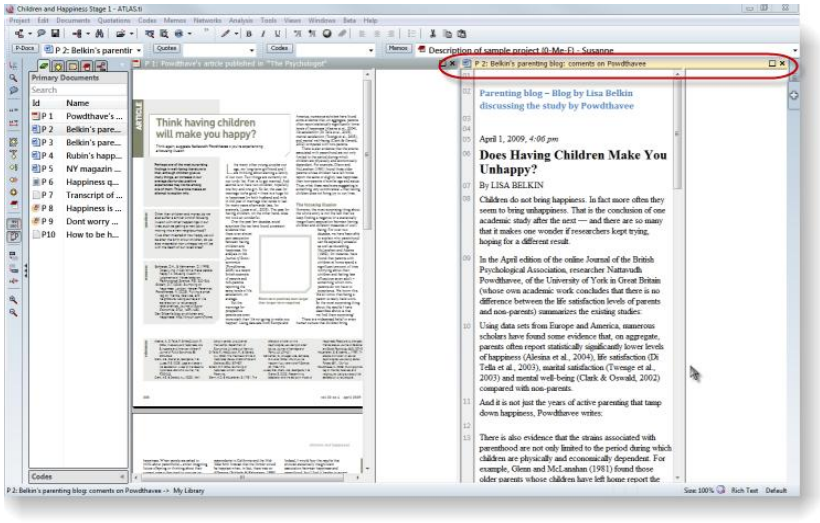

Parenting blog – Blog by Lisa Belkin
discussing the study by Powdthavee
Does Having Children Make You Unhappy?
By LISA BELKIN

Figure 9: HU editor with two document regions

Indicates the active region for currently loaded documents.

Navigation Pane [11]

The navigation pane allows easy access to primary documents, quotations, codes, memos and network views. You can search for objects and also load / open them them from here.

Open the navigation pane at the left hand side of the editor:

Figure 10: Accessing the navigation pane

Double-click on a document entry to load it into the first document region.

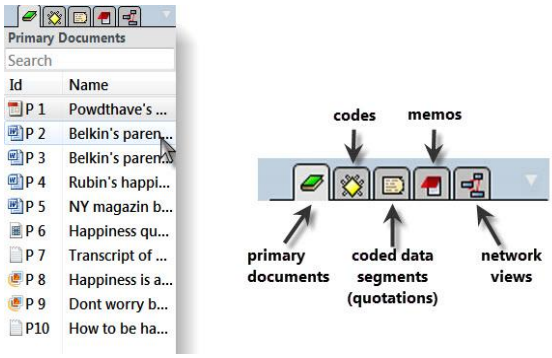


Figure 11: Working with the navigation pane

Use the search field to search for a specific item. This is especially useful if you work with lots of documents or have a long list of codes or other objects.

If you want to rename an object, use the in-place method (see "In-place Label Editing."

Switch to **View mode** by right clicking on an object in the list to see preview images for each document. This provides a good overview if you work with different media types and is especially helpful when analyzing lots of image data (see Figure 12). The View mode is available for primary documents and for network views.

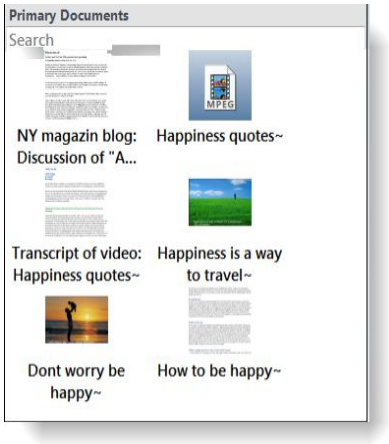


Figure 12: View preview images for your documents in the navigation pane

Status Bar [12]

The *status bar*s at the bottom of the window. The leftmost field tells the user about successful termination of operations, and displays the file name of the currently loaded file. At times, it also contains short help texts for menu items and buttons, and shows error messages when necessary.

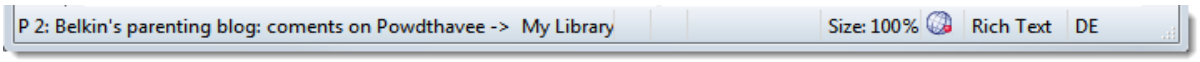


Figure 13: The status bar

Towards the right side, the current view size of the loaded document is shown. Next to it the ATLAS.ti icon. It changes to a pen when the PD is switched to edit mode.

The next field displays the document's content type (e. g., Rich Text, PDF image, audio, video and GEO) and the selected language (in Figure 13 this is DE for German). Click the Default button to select the language.

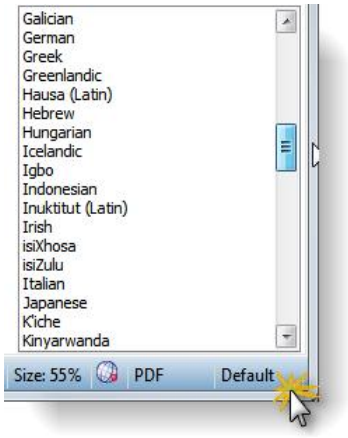


Figure 14: Select the language you are using

Pop-up Menus

Pop-up or "context" menus are activated with a right mouse button click.

'Context' or 'pop-up' menus are used for commands that apply to a selected object or to a specific sub-pane inside a multi-pane window. A pop-up menu is activated by a right mouse click at the current location of the mouse pointer. They are also termed *context sensitive* because the offered commands depend on the type and the current state of the object or the context in which the menu was activated.

Using pop-up menus to initiate procedures is a three-step procedure typical for window-mouse user interfaces:

- Select an object.
- Open the pop-up menu with the right mouse button.
- Select a command with the left mouse button.

The HU editor provides specific pop-up menus in each of its sub-panes. The PD pane alone offers a variety of pop-up menus, depending on what is currently displayed or selected. When there is no PD displayed (e. g., directly after starting a session or after closing a PD) you get the wallpaper menu:

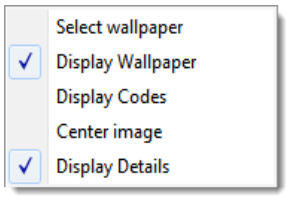


Figure 15: Wallpaper pop-up menu

When a PD is loaded and a chunk of text is selected, a different pop-up menu is displayed:

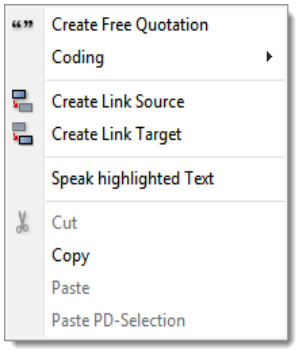


Figure 16: Pop-up menu for a selected text segment.

If the selection is an existing *quotation*, the pop-up menu gets more specific:

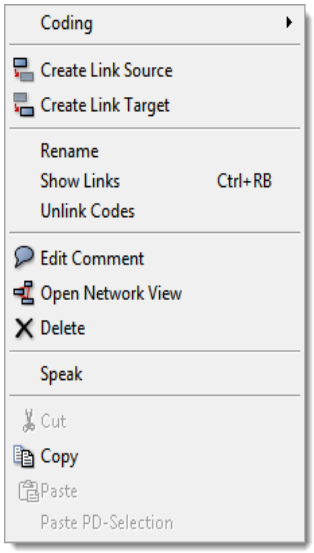


Figure 17: Pop-up menu for a quotation.

The commands are tailored to the objects under the cursor at the time the context menu pops up.

The Object Managers

The advantage of drop-down lists is that they save space. To provide more efficient access to the objects listed in the drop-down lists, the lists can be displayed in a detached window. These windows are called **Object Managers** because they not only allow access to the objects, but provide many more options and functions.

Like many other tools that can be invoked from the main editor, an Object Manager is a *child* or dependent window of the main editor.

Child windows have some common properties:

- They are closely related to their parent window (here: the HU editor) and changes in either the child or the parent window are usually "broadcast" between them (like the selections of objects).
- They can be resized and positioned independently of their parent window.
- They are minimized when the parent window is minimized and they are restored with their parent window.
- They are closed when the parent window is closed.
- However, child windows do NOT move with the parent window.

Roll-up Mode

On low resolution screens, Object Managers can cover relatively large areas of the workspace. You can use the roll-up mode to save screen space. In order to "roll up" a window, click on the icon on the top left of the window as shown in Figure 18 and the select the roll-up option from the menu.

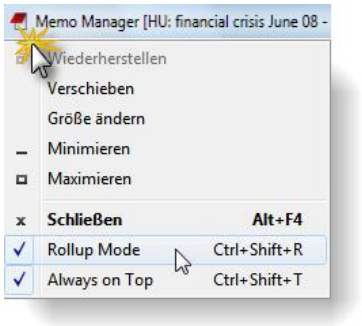


Figure 18: Activate the roll-up mode to optimize space

Launching An Object Manager

In addition to the options provided by the navigation pane, you can also open a list of all documents in a separate window called the *Primary Document Manager*. This manager contains a number of additional functions.

To open for instance the Document Manager, select the main menu option **Documents / Primary Doc Manager** or click on the P-Docs button to the left of the drop-down list.

In the same way, you can launch the **Quotation, Code Manager** and **Memo Manager.**

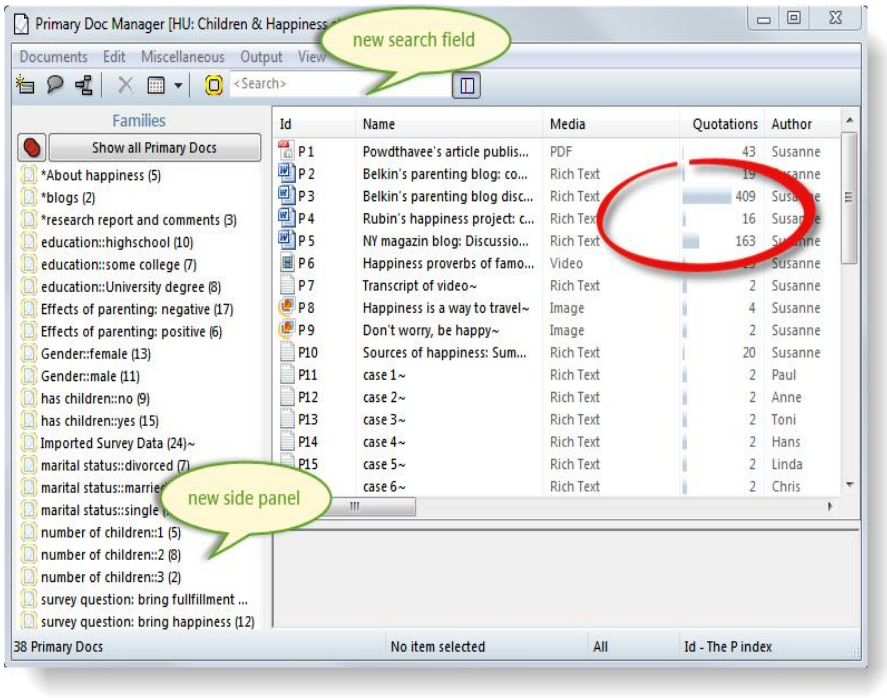

Primary Doc Manager [HU: Children & Happiness
new search field
Documents Edit Miscellaneous Output View
<Search>
Families
Show all Primary Docs
*About happiness (5)
*blogs (2)
*research report and comments (3)
education::highschool (10)
education::some college (7)
education::University degree (8)
Effects of parenting: negative (17)
Effects of parenting: positive (6)
Gender::female (13)
Gender::male (11)
has children::no (9)
has children::yes (15)
Imported Survey Data (24)~
marital status::divorced (7)
marital status::marrie
marital status::single
number of children::1 (5)
number of children::2 (8)
number of children::3 (2)
survey question: bring fullfillment ...
survey question: bring happiness (12)
new side panel
Id Name Media Quotations Author
P 1 Powdthavee's article publis... PDF 43 Susanne
P 2 Belkin's parenting blog: co... Rich Text 19 anne
P 3 Belkin's parenting blog disc... Rich Text 409
P 4 Rubin's happiness project: c... Rich Text 16
P 5 NY magazin blog: Discussio... Rich Text 163
P 6 Happiness proverbs of famo... Video Susanne
P 7 Transcript of video~ Rich Text 2 Susanne
P 8 Happiness is a way to travel~ Image 4 Susanne
P 9 Don't worry, be happy~ Image 2 Susanne
P10 Sources of happiness: Sum... Rich Text 20 Susanne
P11 case 1~ Rich Text 2 Paul
P12 case 2~ Rich Text 2 Anne
P13 case 3~ Rich Text 2 Toni
P14 case 4~ Rich Text 2 Hans
P15 case 5~ Rich Text 2 Linda
case 6~ Rich Text 2 Chris
38 Primary Docs
No item selected
All
Id - The P index

Figure 19: Primary Document Manager

On the right hand side of the window you see the list of objects. Various view options are available (see View Menu).

On the left hand side, you see an optional side panel that shows the existing families. Families are a device in ATLAS.ti that allows you to group objects (see The Manager Side Panel).

If you select an item that is part of a family, the family icon is highlighted. In Figure 20 for instance the memo **idea memo* is selected. As it is part of the memo family *Instructions, the icon of this family is highlighted.*

Figure 20: Link between list items and associated families

If you click on a family in the side panel, you activate a local filter and the list to the right only shows the items of the selected family. Note that the family is displayed in bold characters:

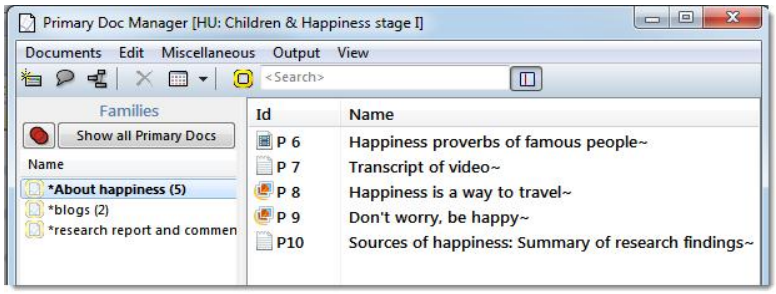


Figure 21: Use side panel to filter the list of primary documents

It is also possible to set a global filter in the side panel and to create families and super families right where you need them in the Manager (see "The Manager Side Panel ").

Click on **Show all** to view the full lists of items again.

You can activate or deactivate the side panel by selecting: **View / Show Side Panel**, or select click on the side panel button in the tool bar (see left).

The Object Manager Window

The four Object Managers have some common properties. The general layout of their window is as follows:

Title, Menu, And Toolbar

The title bar displays the object type. In the figure above the PD Manager is shown. The menu and the toolbar below the title bar offer access to frequently used functions, some of which are also accessible from pop-up menus.

As the functions are different for all four object types, menu and toolbar options differ for the four Object Managers. The toolbar options are described in more detail below. The menu items resemble the corresponding main menus in the HU Editor.

Note that not all options are available at all times. Some menu and toolbar options need either a single selection or multiple selections.

The List Pane

Below the toolbar is the list pane. Unlike the HU Explorer or the Network Editor that can handle heterogeneous collections of objects, the Object Managers display objects of only one type. When you are in "Details" view mode, a number of attributes of the items are displayed in a table-like manner. The order of the columns can be changed by dragging a column to a different position in the list. Items can be sorted or reversed by clicking on the respective column header.

The Text Pane

The text pane, located below the list pane, displays the comment or, in the case of memos, the text body. All text panes are Rich Text compatible.

The Split Bar

The relative size of the list and comment pane can be modified by dragging the split bar between the two panes. The cursor changes when the mouse moves over the split bar. You can re-size the adjacent panes by dragging the split bar to the desired position.

The Status Bar

The status bar's fields display from left to right the number of objects, the selected object, the filter, and the sort option.

Figure 22: Status bar of primary document manager

The status bar above indicates that the Primary Document Manager lists 12 documents, none of the PDs is currently selected. The filter is set to display only documents from the PD family: Investigation, and items are sorted by "ID."

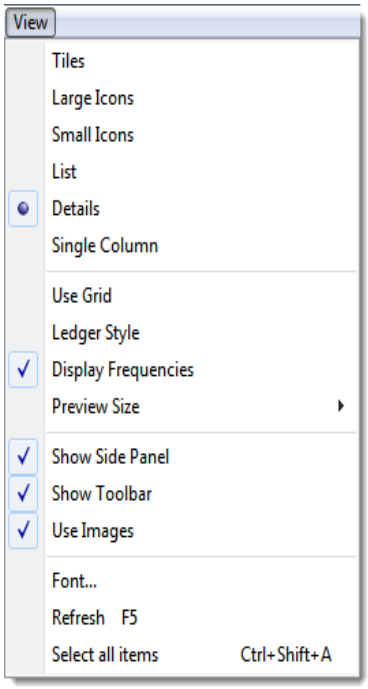
For additional information about how to use the status bar for sort- and filter-related procedures see "Sorting and Filtering."

Pop-Up Menus

The list and text panes offer context sensitive pop-up menus. The list pane's context menu contains a portion of the commands available from the main menu for the selected objects. The text pane's menu offers standard commands for editing and formatting.

View Menu

View Options are the same for all Object Managers.



Cloud View (available in the Code Manager only): Shows all codes in a cloud view. Once you have activated the cloud view, various other view options are offered via the **Cloud** sub menu, like viewing extended tags, changes the weight to groundedness / density, to sort by name, etc.

Choose between viewing **Tiles**, **Large Icons**, **Small Icons**, a **list** of items, or a list of items plus additional information in **Details** view.

The Tiles view is interesting in combination with the option **Preview Size**. This option is available in the P-Docs and Memo Manager and results in the display of thumb nail images.

The **Single Column** view shows the most essential information like name, how often used, linkages to other objects, start and end position (where applicable).

Use Grid displays lines between rows in Details view.

Ledger Style shades every other row.

Display Frequencies: Offers a visualization of quotation frequencies in the P-Docs Manager and of groundedness and density counts in the Code Manager. It needs to be combined with the Details view.

Auto-Color Mode (only available in the Code Manager). Codes are automatically assigned a color according to their groundedness and density. See "T" for details.

Preview Size is related to the tiles view. You can chose among various sizes starting with the standard size (32 x 32) up to Godzilla size (512x512).

Show Side Panel: The side panels can be used to create and display families (see Creating Families), to select families as local or global filter (see Filtering)and to create super families (see Super Families).

Show Toolbar: turns the display of the toolbar on or off.

Use Images: Shows icons for the various objects.

Font individually specifies the font used for this list. The default font for the list and the text area can be set in General Preferences.

Refresh (F5) refreshes the list display

Select all items is self-explanatory.

Selecting Items In Object Managers

Next to thinking, clicking will likely be one of the most frequent activities when working with ATLAS.ti.

Clicking is done in many different ways such as single- and double-clicking and clicking with the left or the right mouse button. The "semantics" of a mouse-click are not perfectly straightforward, and a few variations must be learned.

A single click **selects** an object, a double-click **executes** an associated action for the object.

A single click with the left mouse button selects and highlights an item in each of the Object Managers.

Double-clicking an item selects the object and invokes a procedure depending on the type and state of the object. The effect of a double-clicking is described for each of the Object Managers below.

For multiple selections, you may use the standard Windows selection techniques.

Sorting And Filtering

The Object Managers permit comfortable sorting and filtering. See "The Manager Side Panel " and "Sorting and Filtering" for details.

Searching

Use the search field to search for either documents, quotations, codes or

Figure 23: Search field in object managers

memos in the respective managers.

If you enter a search term, all objects that include the term somewhere will be shown in the list. For example, if you enter the term "children" in the code manager, all codes that include the word "children" somewhere in the code name will be shown like *children: unrelated to personal happiness, or source: children,* or *SQ: Reasons for having children*.

Remember to delete the search term if you want to see all codes again.

Incremental List Search

This feature is available in the list pane of all Object Managers. Select any item in the list and type in an arbitrary sequence of characters to jump to a subsequent list entry matching this sequence.

For example, suppose a number of codes begin with "em" (e. g., "Emotions") and others with "ex" (e. g., "External Reference"): typing "em" will jump to the first of the "EMotion …" codes, while entering "ex" will jump to "EXternal reference." Every other character typed advances the focus to the next list entry unless a matching name cannot be found.

Avoid long delays between entering characters. After a certain system-defined timeout, the next character starts a new forward search.

In-place Label Editing

In-place editing in Object Managers and side panels is a convenient way to rename objects. On a selected item, you can initiate in-place editing by either clicking again or pressing the F2 key. Don't rush the second click, though, as this initiates a double-click action. Under **Tools / Preferences / General Preferences**, *tab: Margin* you can set whether an in-place action should be a local or a global action. The default is local.

Editing Text

In the Object Managers, the comment for the selected object or a memo's content is displayed in the text pane below the list pane. You may edit the text

right there or you might prefer to open a full-fledged text editor (see button to the left). For minor changes, working in the Object Manager's text pane is quite comfortable.

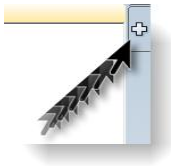
There are several ways to save a changed comment. With General Preferences set to "Accept changes in browser silently," an object's comment (or a memo's body) is saved automatically whenever you select another object in the list. This is the default setting and a quick way to save. However, you will also change the text if you click on another item accidentally.

If you are not using the Quick Save option, you need to confirm saving the comment or memo when selecting another object in the list.

Changes can be explicitly saved at any time by pressing the **Ctrl-S** key combination, or via **Edit** / **Accept** from the Object Manager's menu.

All text editors offer full rich text support.

Primary Document Manager



For many operations, the Primary Document Manager is easier to handle than the drop-down list (see Figure 19).

If you **double-click** on a document, it will be loaded into the active region. You can also drag and drop documents from here onto the region buttons (see left) to load it into a new region. Or click on the region button first to open a new region and then drag a document in the empty region pane.

As already shown for the navigation pane (see "Navigation Pane [11], you can also view your documents as tiles: **View / Tiles**. The standard option is to see thumb nails. But you can also increase the size by selecting **View / Preview Size**.

Figure 24: Preview images for documents in Primary Doc Manager

Next to each tile you find information about the document; its type, the families it belongs to, and the number of quotations.

Double-click: Double-clicking a PD loads the data source and displays its content in the PD pane.

Single-click – pause – single-click (or **F2**) activates in-place editing of PD names.

Multiple Selection: You can select more than one PD at a time. This is useful for printing a selected list of PDs (**Output / List**).

Filter: Click on a PD family in the side panel to set a local filter. Ctrl+Shift+double-click sets a family as global filter (see Using Families as Filters).

Colors:

- Usable PDs are colored **black**.
- PDs with an inaccessible data source file are colored gray. If this happens, you have either moved **linked** documents to a different location or have renamed them. If you are using managed files, this indicates that the document is not available in the library (see "Document Libraries."
- PDs that are available but cannot be loaded due to a consistency problem are colored red. This indicates a problem with editing for **linked** documents. You have either modified the document outside of ATLAS.ti or have lost or misplaced the log file that is created when editing a document inside of ATLAS.ti.
- PDs that can be loaded, but are loaded via the fallback path, are shown in a dark red color. The fallback path is either the HU or the TBPATH. This only applies to **linked** documents.

See the ATLAS.ti 6 manual for further detail on linked documents.

The PD Manager Toolbar

Figure 25: PD Manager toolbar

The toolbar is a convenient alternative to selecting procedures via the main menu. The difference is –where applicable- the selected option only has an effect on the currently selected document. When selecting the same option from the main menu, it is applied to all documents.

From left to right:

- Add a new document to your project
- Open text pane for writing comments in a full-fledged text editor.
- Open a network view on the selected primary document.
- Remove selected document(s) from a project.
- Open / close side panel.
- Various View options
- Open the Primary Document Family Manager (see "The Family Managers").
- Search the list of documents

PD Manager Columns

The columns of the PD Manager's details view offer a vast amount of information to keep track of possible access problems. The arrangement of columns may differ from your current setting.

Figure 26: PD Manager Columns

Id: The internal ID number assigned to the document when it was first added as a PD. An icon indicates the document type.

Name: The name of the PD. Note that this name can differ from the file name, as PDs can be renamed within ATLAS.ti.

Media: The media type.

Quotations: The number of quotations created for this PD.

Location: The actual location of the data source file. This could be My Library, Team Library, in HU if the document is embedded, or the actual location of a linked document if accessible.

Author: The name of the ATLAS.ti user who assigned the document

Families: The document families the document has been assigned to.

Created: The date the document was assigned to this HU.

Modified: The date when the PD was last modified, i. e. the date of last usage within ATLAS.ti, e. g., a quotation was created or removed. The modification date does *not* refer to the modification of the data source file.

Usable: 'Yes' indicates that a PD's data source can be loaded, and 'no', indicates that the data source is not accessible.

Origin: The original location of the PD's data source from where it was assigned to the HU.

Quotation Manager

This Manager offers you several display and sorting options.

A double-click on a quotation loads its PD (unless already loaded)n and displays its content in context.

In this example, quotation "3:64" is selected and its comment is displayed in the text pane.

Single-click selects a quotation. If you have written a comment for the selected quotation, it is displayed in the text pane.

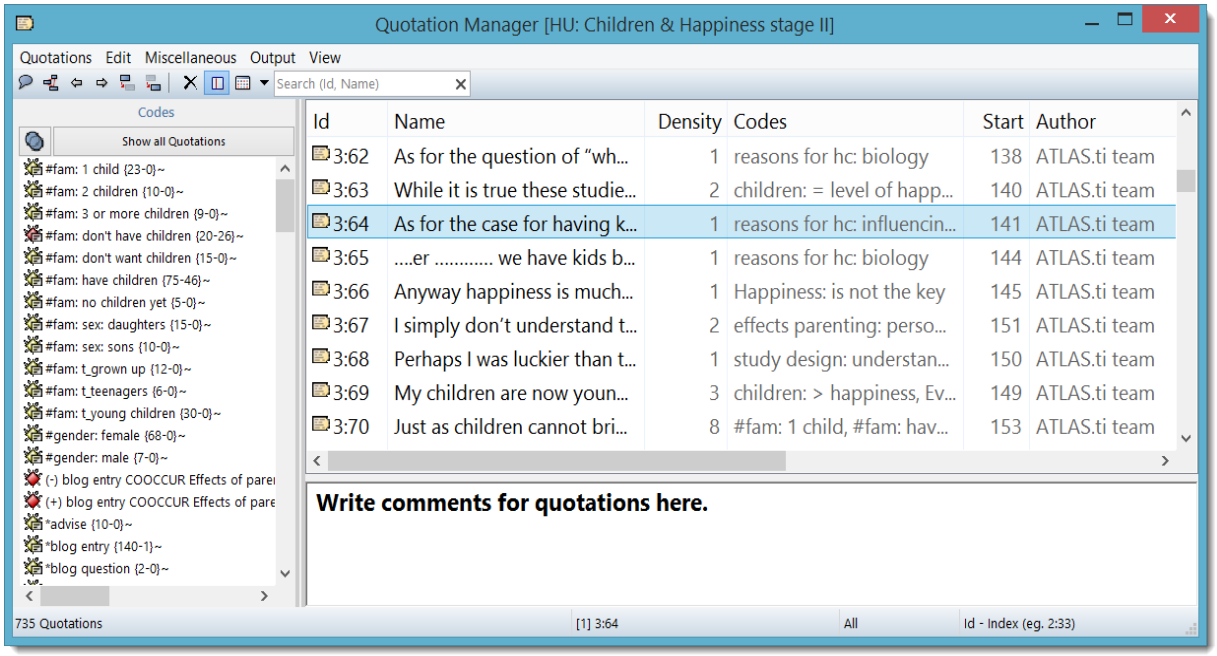

Quotation Manager [HU: Children & Happiness stage II]
Quotations Edit Miscellaneous Output View
Search (Id, Name)
Codes
Show all Quotations
#fam: 1 child {23-0}~
#fam: 2 children {10-0}~
#fam: 3 or more children {9-0}~
#fam: don't have children {20-26}~
#fam: don't want children {15-0}~
#fam: have children {75-46}~
#fam: no children yet {5-0}~
#fam: sex: daughters {15-0}~
#fam: sex: sons {10-0}~
#fam: t_grown up {12-0}~
#fam: t_teenagers {6-0}~
#fam: t_young children {30-0}~
#gender: female {68-0}~
#gender: male {7-0}~
(-) blog entry COOCCUR Effects of pare
(+) blog entry COOCCUR Effects of pare
*advise {10-0}~
*blog entry {140-1}~
*blog question {2-0}~
Id Name Density Codes Start Author
3:62 As for the question of "wh... 1 reasons for hc: biology 138 ATLAS.ti team
3:63 While it is true these studie... 2 children: = level of happ... 140 ATLAS.ti team
3:64 As for the case for having k... 1 reasons for hc: influencin... 141 ATLAS.ti team
3:65 ....er ..... we have kids b... 1 reasons for hc: biology 144 ATLAS.ti team
3:66 Anyway happiness is much... 1 Happiness: is not the key 145 ATLAS.ti team
3:67 I simply don't understand t... 2 effects parenting: perso... 151 ATLAS.ti team
3:68 Perhaps I was luckier than t... 1 study design: understan... 150 ATLAS.ti team
3:69 My children are now youn... 3 children: > happiness, Ev... 149 ATLAS.ti team
3:70 Just as children cannot bri... 8 #fam: 1 child, #fam: hav... 153 ATLAS.ti team
Write comments for quotations here.
735 Quotations
[1] 3:64
All
Id - Index (eg. 2:33)

Figure 27: Quotation Manager

Single-click – pause – single-click (or **F2**) activates in-place editing of quotation names.

Double-click: A double-click on a list entry displays the selected quotation in context.

Multiple Selection: You can select more than one quotation at a time, either to delete them, to attach codes, to open a network on them, or to create output.

Drag & Drop: By dragging one or more quotations onto other quotations, you create hyperlinks.

Colors: The color pattern for quotations follows the same rules as for PDs:

- Quotations that can be activated and displayed are listed in **black**.
- Quotations from linked PDs that are available but cannot be loaded due to an issue with editing are displayed in red.
- Quotations from PDs with inaccessible data source files are displayed in gray (see section PDs with an inaccessible data source file are colored gray).
- Quotations that can be loaded, but are loaded via the fallback path, are shown in a dark red color. This applies to linked documents only. See the ATLAS.ti 6 manual for further detail on linked documents.

Quotation Manager Toolbar

Figure 28: Quotation Manager toolbar

From left to right:

- Open text pane for writing comments in a full-fledged text editor.
- Open a network view on the selected quotation.
- Move forward to the next quotation (or back to the last one)
- Create the link source for a hyperlink ("Hypertext")
- Create the target link for a hyperlink.
- Delete selected quotation(s).
- Open / close side panel.
- Various View options
- Enter a search term into the search field if you are looking for particular quotations.

Quotation Manager Columns

Figure 29: Quotation Manager columns

Id: The Id combines the PDoc number and the quotation sequence number. The quotation Id 3:10 means that the quotation is part of the third (3:)

document, and it is the 10th (:10) quotation that was created in this document. Quotations are numbered in chronological and not in sequential order.

A tilde sign (~) indicates that a comment was written for this quotation; the brackets (< or >) indicate that the quotation is a start anchor or target for a hyperlink.

Name: The first 30 characters of a quotation are used as the default list name. This name can be changed if desired. The default name of a graphic, audio, or video quotation is the name of the data file name.

Primary Document: The name of the primary document it belongs to.

Codes: The codes that have been applied to the quotation.

Size (media type dependent):

- Text quotation: number of paragraphs
- Graphic quotation: height in pixel of the quotation's rectangle.
- Audio quotation: hour:minutes:seconds:milliseconds
- Video quotation: hour:minutes:seconds:milliseconds
- GoogleEarth quotation: 1

Start (media type dependent):

Text quotation: paragraph number

Graphic quotation: upper left coordinate

Audio quotation: h:mm:ss:mil (hours:minutes:seconds: milliseconds)

Video quotation: start frame or time as for audio quotations

GoogleEarth quotation: Geographic reference

Density: Number of links to other quotations.

Author: Name of user who created the item.

Created: Creation date and time.

Modified: Date and time of last modification.

Code Manager

Besides the HU Editor, the Code Manager will probably be one of your most frequently used tools.

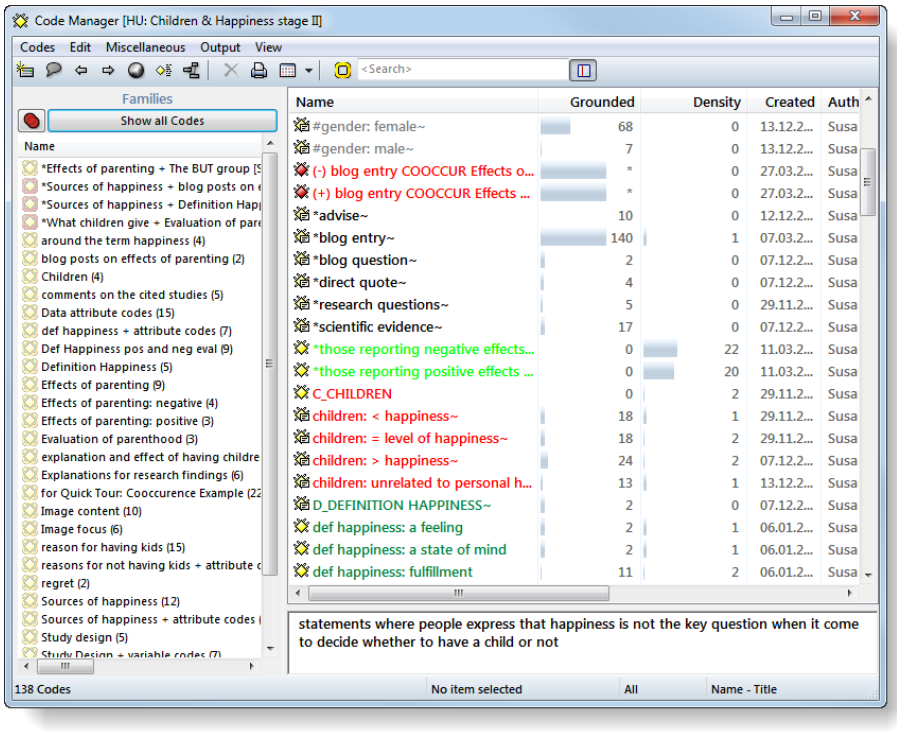

Code Manager [HU: Children & Happiness stage II]
Codes Edit Miscellaneous Output View
<Search>
Families
Show all Codes
Name
*Effects of parenting + The BUT group [S
*Sources of happiness + blog posts on
*Sources of happiness + Definition Happ
*What children give + Evaluation of par
around the term happiness (4)
blog posts on effects of parenting (2)
Children (4)
comments on the cited studies (5)
Data attribute codes (15)
def happiness + attribute codes (7)
Def Happiness pos and neg eval (9)
Definition Happiness (5)
Effects of parenting (9)
Effects of parenting: negative (4)
Effects of parenting: positive (3)
Evaluation of parenthood (3)
explanation and effect of having childre
Explanations for research findings (6)
for Quick Tour: Cooccurence Example (22
Image content (10)
Image focus (6)
reason for having kids (15)
reasons for not having kids + attribute
regret (2)
Sources of happiness (12)
Sources of happiness + attribute codes
Study design (5)
Study Design + variable codes (7)
Name Grounded Density Created Auth
#gender: female~ 68 0 13.12.2... Susa
#gender: male~ 7 0 13.12.2... Susa
(-) blog entry COOCCUR Effects o... * 0 27.03.2... Susa
(+) blog entry COOCCUR Effects ... * 0 27.03.2... Susa
*advise~ 10 0 12.12.2... Susa
*blog entry~ 140 1 07.03.2... Susa
*blog question~ 2 0 07.12.2... Susa
*direct quote~ 4 0 07.12.2... Susa
*research questions~ 5 0 29.11.2... Susa
*scientific evidence~ 17 0 07.12.2... Susa
*those reporting negative effects... 0 22 11.03.2... Susa
*those reporting positive effects ... 0 20 11.03.2... Susa
C_CHILDREN 0 2 29.11.2... Susa
children: < happiness~ 18 1 29.11.2... Susa
children: = level of happiness~ 18 2 29.11.2... Susa
children: > happiness~ 24 2 07.12.2... Susa
children: unrelated to personal h... 13 1 13.12.2... Susa
D_DEFINITION HAPPINESS~ 2 0 07.12.2... Susa
def happiness: a feeling 2 1 06.01.2... Susa
def happiness: a state of mind 2 1 06.01.2... Susa
def happiness: fulfillment 11 2 06.01.2... Susa
statements where people express that happiness is not the key question when it come to decide whether to have a child or not
138 Codes
No item selected
All
Name - Title

Figure 30: Code Manager – View options set to Details / Display Frequencies / Show Side Panel

A double-click on a code displays the coded quotation highlighted in the context of its PD. If more than one quotation is associated with this code, a list pops up from which a quotation can be selected.

The Code Manager is frequently used to create and modify codes, to code data segments via drag & drop, and to retrieve coded data segments. It can also be used to sort your codes in multiple ways in order to analyze code book evolution.

Single-click: Selects a code. If you have written a definition for the selected code, it is displayed in the text pane. Once selected, the code can be used for drag & drop coding.

Single-click – pause – single-click (or **F2**) activates in-place editing of code names.

Double-click: Opens a list of quotations that have been coded with this code.

Multiple Selection: You can select more than one code at a time to delete, code a data segment with all of the selected codes, open a network, create output, assign them to one or more code families, or to create a code family containing the selected codes (**Codes / Edit Family**).

Drag & Drop: You can use the Code Manager as a convenient tool for coding by dragging codes onto a highlighted piece of data. If you drag codes onto another code within the same list pane, code-links will be created.

Colors: Super Codes are displayed in red, regular codes in black unless you color them.

Filter: Click on a code family in the side panel to set a local filter. Ctrl+Shift+Double click sets a family as global filter (see "The Manager Side Panel ").

Code Manager Toolbar

Figure 31: Code Manager toolbar

From left to right:

- Create a new code.
- Open text pane for writing comments in a full-fledged text editor.
- When double clicking a code, a list of linked quotations is opened. Click the forward and back buttons to review the list.
- Select a color for one or more selected codes.
- Code the current selection with one or more selected codes.
- Open a network view on the selected code.
- Delete selected code(s).
- Create output.
- Open / close side panel.
- Various View options.
- Open the Code Family Manager (see "The Family Managers").
- Enter a search term to search for particular codes.

Code Manager Columns

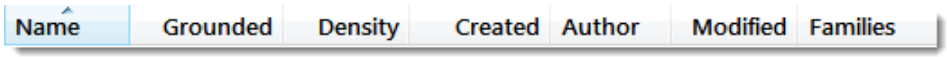


Figure 32: Code Manager Columns

- **Name:** Code name.
- **Grounded:** Code frequency or "groundedness" (i. e., the number of quotations to which the code is applied).
- **Density:** Number of links to other codes.
- **Created:** Creation date and time.
- **Author:** User who created the code.
- **Modified:** Date and time of last modification.
- **Families:** Name of code family if the code has been added to a family.

Memo Manager

The Memo Manager lists the HU's memos. Memos created or modified today are listed in bold font. The text pane displays the content of the selected memo.

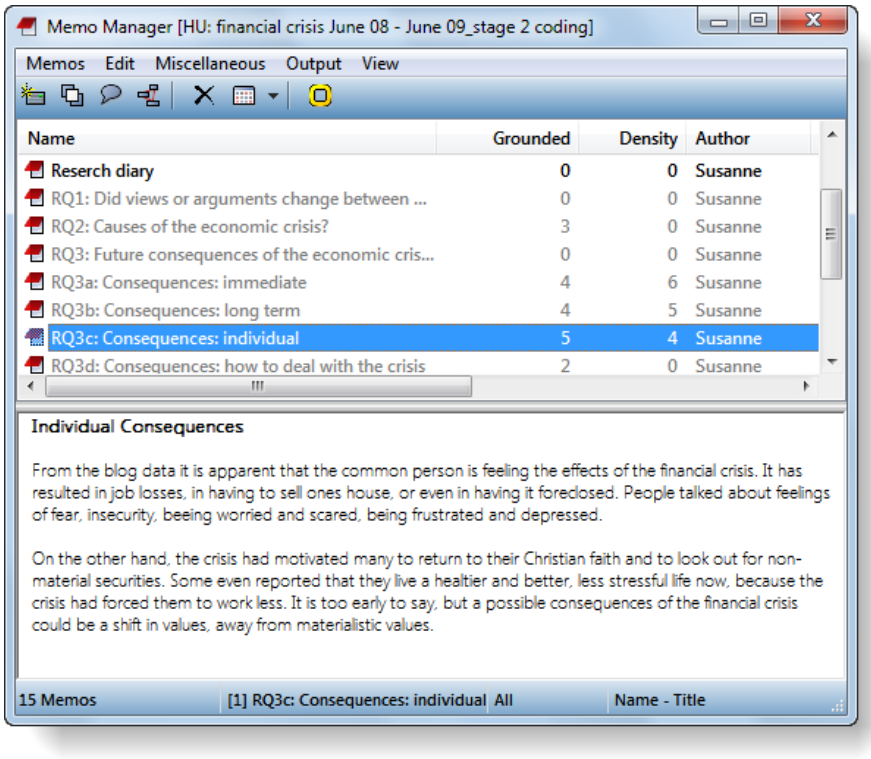

Memo Manager [HU: financial crisis June 08 - June 09_stage 2 coding]
Memos Edit Miscellaneous Output View
Name Grounded Density Author
Reserch diary 0 0 Susanne
RQ1: Did views or arguments change between ... 0 0 Susanne
RQ2: Causes of the economic crisis? 3 0 Susanne
RQ3: Future consequences of the economic cris... 0 0 Susanne
RQ3a: Consequences: immediate 4 6 Susanne
RQ3b: Consequences: long term 4 5 Susanne
RQ3c: Consequences: individual 5 4 Susanne
RQ3d: Consequences: how to deal with the crisis 2 0 Susanne
Individual Consequences
From the blog data it is apparent that the common person is feeling the effects of the financial crisis. It has resulted in job losses, in having to sell ones house, or even in having it foreclosed. People talked about feelings of fear, insecurity, beeing worried and scared, being frustrated and depressed.
On the other hand, the crisis had motivated many to return to their Christian faith and to look out for non-material securities. Some even reported that they live a healtier and better, less stressful life now, because the crisis had forced them to work less. It is too early to say, but a possible consequences of the financial crisis could be a shift in values, away from materialistic values.
15 Memos
[1] RQ3c: Consequences: individual
All
Name - Title

Figure 33: Memo Manager

- **Single-click** selects a memo. The content of the memo is displayed in the text pane.
- **Single-click – pause – single-click** (or **F2**) activates in-place editing of memo titles.
- **Double-click** opens the memo editor. This behavior can be changed to activate the quotation associated with a memo via General Preferences.
- **Multiple Selection:** You can select more than one memo at a time for bulk deletion, to attach all selected memos to a data segment, to open a network on them, to create output, to assign them to one or more memo families, or to create a memo family containing the selected memos (**Memos / Edit Family**).
- **Drag & Drop:** You can attach a memo to a data selection ("memoing") by dragging it into the PD pane (applies to text and image data).
- **Colors:** Memos content resides in the HU's file storage until selected for the first time. Memos, which are not yet loaded are displayed in gray. Memos which were created or modified today are displayed bold.

Memo Manager Toolbar

Figure 34: Memo Manager toolbar

From left to right:

- Create a new memo
- Toogle: The windows either is display always on top (default), or is closed when you click somewhere else.
- Open text pane for writing the contents of a memo in a full-fledged text editor.
- Open a network view on the selected memo.
- Delete the memo.
- Open / close side panel
- Various View options
- Open the Memo Family Manager (see "The Family Managers").
- Enter a search term to search for particular memos.

Memo Manager Columns

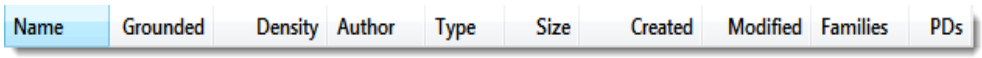


Figure 35: Memo Manager Columns

- **Name:** Memo title.
- **Grounded:** Number of quotations to which a memo is connected.
- **Density:** Number of codes and other memos to which the memo is connected.
- **Size:** Size of content. Counts text characters and embedded objects.
- **Author:** Name of the user who created the memo.
- **Type:** Memo type selected for this memo.
- **Created:** Creation date and time.
- **Modified:** Date and time of last modification.
- **Families**: Name of memo family if the memo has been added to a family.
- **PDs:** Indicates whether the memo is used as the data source for one or more PDs. A dash indicates that it is not used as a PD.

The Manager Side Panel

The side panels in document, quotation, code and memo managers allow much more immediate access to fundamental activities like selecting codes, families, creating families and super families, and setting local and global filters. This allows a much more effective integration into the work flow and saves a lot of mouse movements and clicks. In combination with the Venn diagram, it is now possible to run simple AND and OR queries in the quotation manager.

You activate or deactivate the side panel by selecting: **View / Show Side Panel**, or select click on the side panel button in the tool bar (see left)

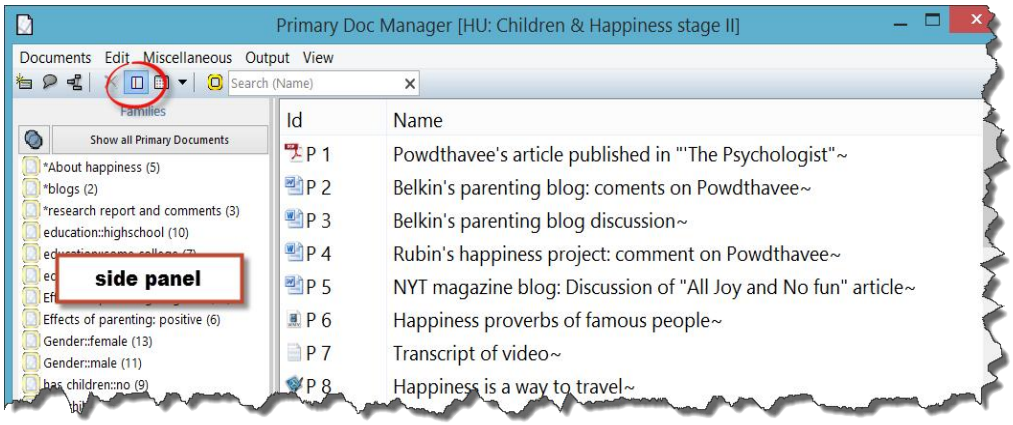

Primary Doc Manager [HU: Children & Happiness stage II]
Documents Edit Miscellaneous Output View
Search (Name)
Families
Show all Primary Documents
*About happiness (5)
*blogs (2)
*research report and comments (3)
education::highschool (10)
side panel
Effects of parenting: positive (6)
Gender::female (13)
Gender::male (11)
Id
Name
P 1 Powdthavee's article published in "'The Psychologist"~
P 2 Belkin's parenting blog: coments on Powdthavee~
P 3 Belkin's parenting blog discussion~
P 4 Rubin's happiness project: comment on Powdthavee~
P 5 NYT magazine blog: Discussion of "All Joy and No fun" article~
P 6 Happiness proverbs of famous people~
P 7 Transcript of video~
P 8 Happiness is a way to travel~

Figure 36: Side panel in Primary Documents Manager

Creating And Deleting Families

To create a new family, select the items that you want to include using common Windows selecting techniques (either by holding down the Ctrl- of Shift key).

Drag and drop the selected items to the side panel, or right-click in the side panel area and select the option **New from selected items**. Enter a name for the new family and click ok.

See the chapter Family Life for further information on working with families.

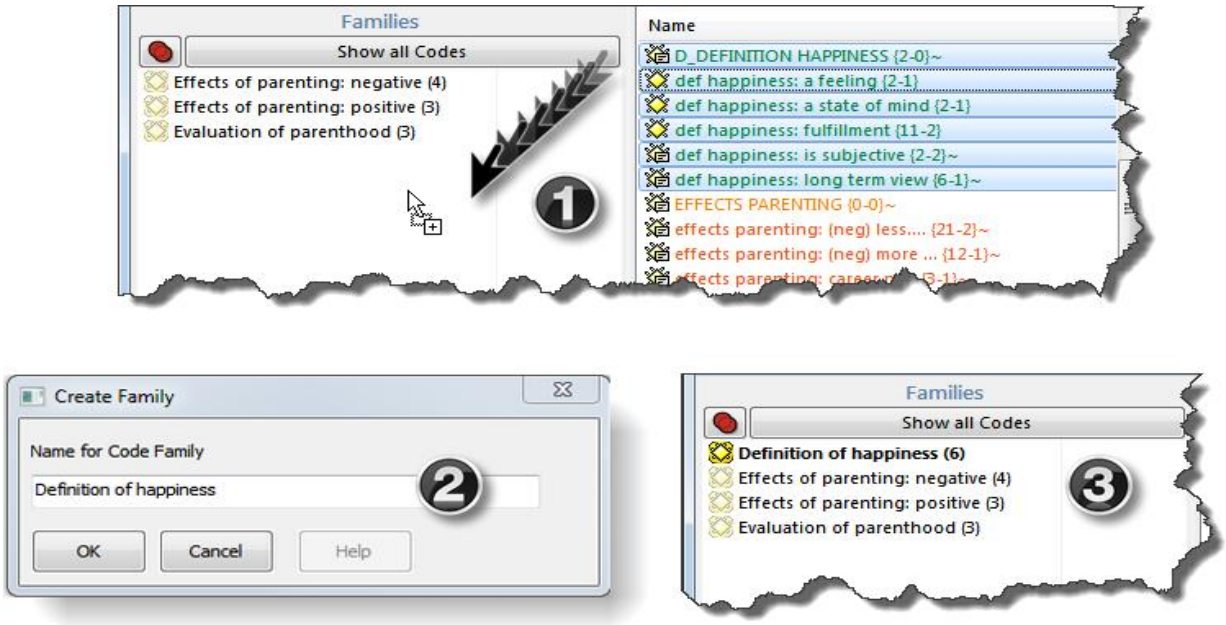


Figure 37: Creating a new family in the side panel

To delete a family, select it in the side panel, right click and select the option **DELETE FAMILY.**

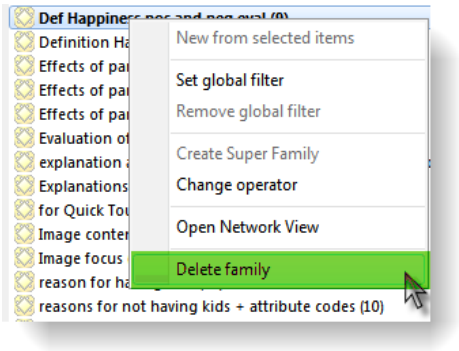


Figure 38: Side panel context menu

Renaming A Family

Renaming is possible via the in-place method: Select an entry in the side panel

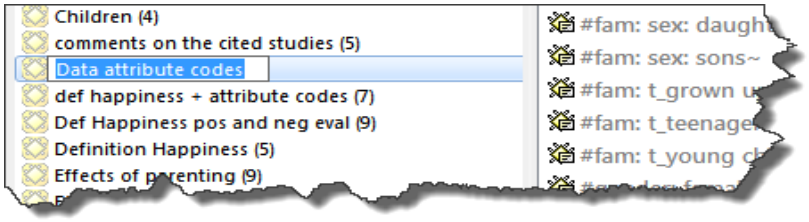

Children (4)
comments on the cited studies (5)
Data attribute codes
def happiness + attribute codes (7)
Def Happiness pos and neg eval (9)
Definition Happiness (5)
#fam: sex: sons~

Figure 39: In-place renaming of objects in side panels

and click left again. Enter a new name.

Removing Items From A Family

You have two options to remove an item from a family. You can use the side panel context menu or the family manager (see "Removing Members." The family manager option is useful if you want to remove lots of items. If you want to remove items using the side panel context menu, proceed as follows:

- Select a family in the side panel.
- Select the items that you want to remove from this family on the right-hand side of the manager. Use the Ctrl- or Shift-key to select multiple items.
- Right-click on the family and select the option **REMOVE SELECTED ITEMS FROM FAMILY.**

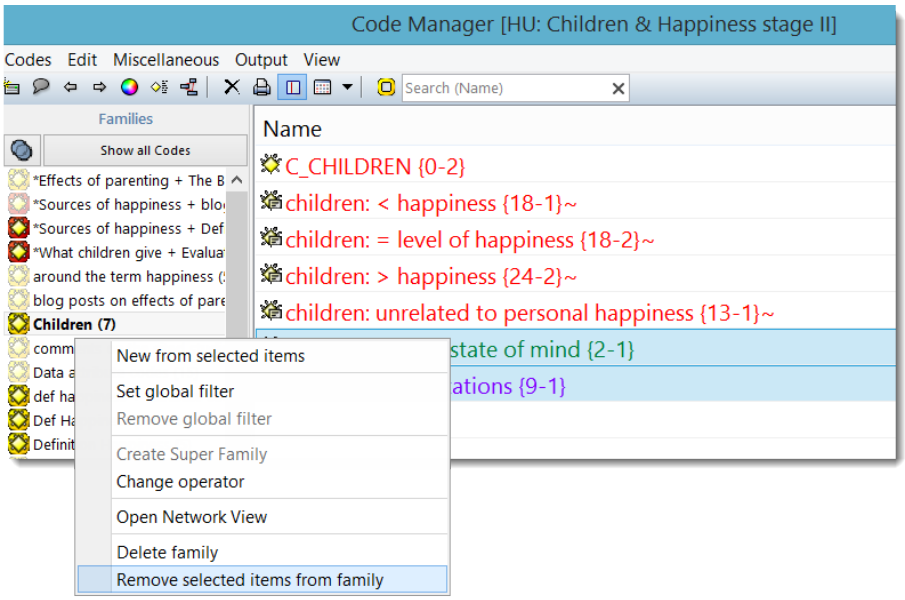


Figure 40: Removing items from a family

Side Panel Context Menu

Right-click to open the context menu of the side panel:

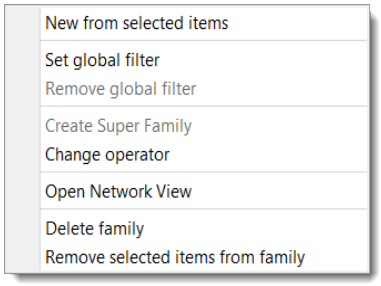


Figure 41: Context menu of side panel

New from selected items: Select one or more codes in the Code Manager, then click this option to create a new family. Another option is to drag the selected codes in the side panel (see Figure 37).

Set global filter / Remove global filter: See "Setting a Local Filter" and "Setting a Global Filter").

Create Super Family / Change operator: See "Creating Super Families as Global Filters."

Open Network View: Select a code family and click this option to a open a network view on this family. See "Families as Nodes."

Delete Family: See "Creating and Deleting Families."

Remove selected items from family: As the name already indicates, use this option to remove unwanted items from a family.

Association Between List Items And Families

If you select an item that is part of a family, the family icon is highlighted. In Figure 42 for instance the memo **idea memo* is selected. As it is part of the memo family *Instructions, the icon of this family is highlighted.*

Figure 42: Link between list items and associated families

Setting A Local Filter

If you click on a family in the side panel, you activate a local filter and the list to the right only shows the items of the selected family. Note that the family is displayed in bold characters:

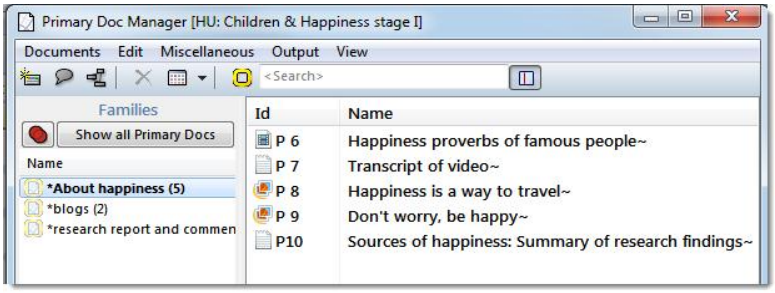


Figure 43: Use side panel to filter the list of primary documents

Click on **Show all ....** to view the full lists of items again.

Creating A Local Filter Using AND And OR

You can make a selection combining the members of multiple families via AND or OR. You can see which one is the currently active operator at the button

displayed at the top left of the list of families. The default operator is OR (see Figure 36 below).

Figure 44: AND and OR operators

To change the operator, you can either click on the button, or right click inside the side panel and select the option **Change operator** from the context menu.

If you select multiple families in the side panel and the OR operator is active, all items of all selected families are shown (think plus).

If the AND operator is active, only the common items of the selected families are shown (think intersection).

Setting A Global Filter

If you want to set a family as global filter, thus affecting the display of the selected items in the entire HU, right click on a family and select the menu option **Set global filter** (see Figure 45 below); or hold down the **Ctrl+Shift** key and **double-click** on a family.

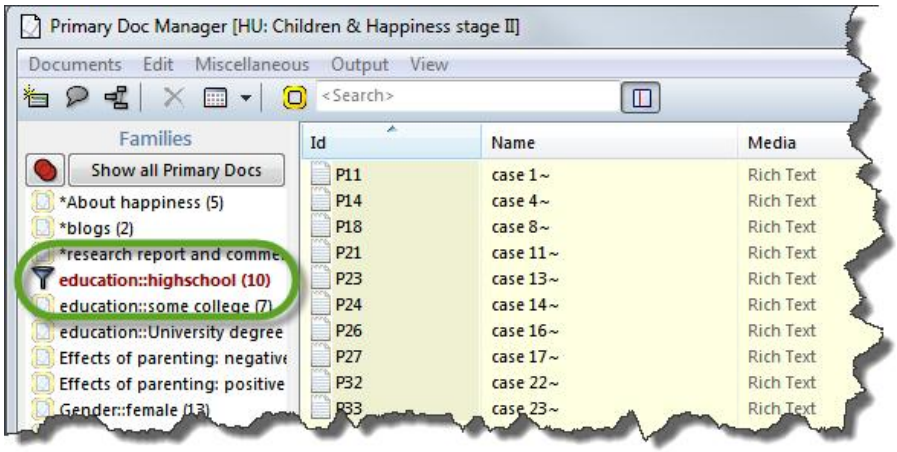


Figure 45: Display of a global filter setting

The family icon is replaced by the filter icon, the name of the family is shown in red characters and the effected lists show a pale yellow background color.

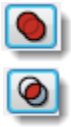
To reset a global filter, right click the family item and select **Remove global filter** (or **Ctrl+Shift double-click**).

If you have set multiple global filters in more than one manager, use the main menu option **Tools / Reset all Filters**.

To set a global filter, you can only select one family at a time. If you want to set a combination of families as global filters, you need to create a super family first (see Creating Super Families as Global Filters).

Creating Super Families As Global Filters

You can create super families using the operators AND or OR (see also the section Super Families).



If you select the OR operator, all items of all selected families are included in the new a super family (plus).

If you select the AND operator, all common items of the selected families are included in the new super family (intersection).

To create a new super family, select the desired operator first. Click on the operator button, or right-click in the side panel and select **Change operator**.

Next select the families that you want to combine.

Right-click and select the option **Create Super Family** from the context menu (or hold down the **Ctrl**-key and click on the operator button).

Data Preparation

Starting And Ending An ATLAS.ti Session

This section describes how to start and end an ATLAS.ti session, how to create and save a project (a Hermeneutic Unit, see section The Hermeneutic Unit (HU).

Starting ATLAS.ti

ATLAS.ti can be started like many other Windows applications, e. g., via the Windows Start menu or by clicking on projects or program shortcuts:

Select ATLAS.ti from the Programs menu: **Start button / Programs / Scientific Software.**

Double-click on the program's shortcut on the desktop, or on your task bar (if you have created one).

Figure 46: ATLAS.ti desktop shortcut

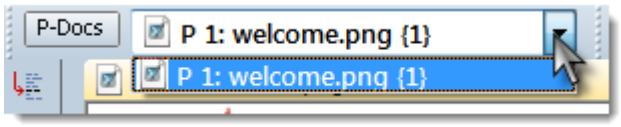


Figure 47: Loading a primary document

If you open ATLAS.ti for the first time, the Welcome project opens. To load the welcome document, click on the drop-down arrow in the P-Docs list field and select the P1: welcome.png.

The welcome document points out the most essential features of the program so as to help you get started:

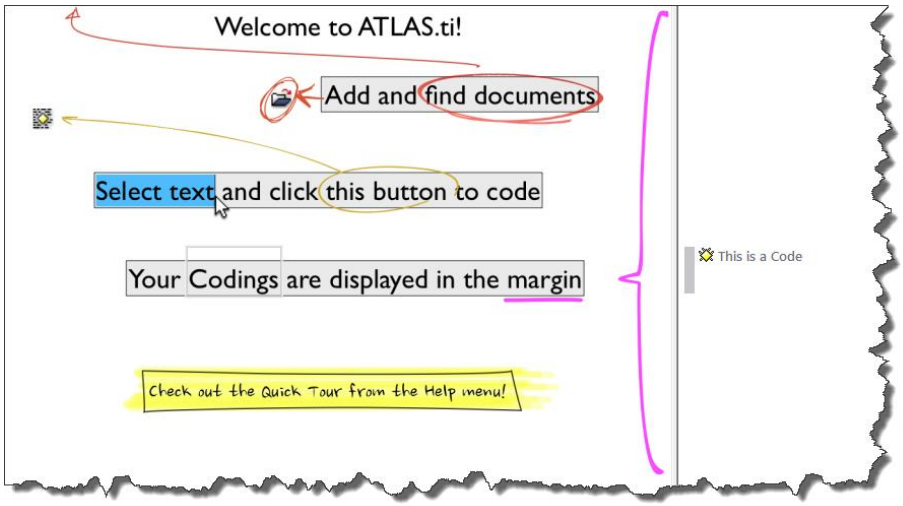

Welcome to ATLAS.ti!
Add and find documents
Select text and click this button to code
Your Codings are displayed in the margin
Check out the Quick Tour from the Help menu!
This is a Code

Figure 48: Welcome document

The Welcome project is write-protected, i.e. you cannot make make changes to it, and it is not meant for you to use to add your material. To start your your own (first) project, you must create a new project.

Select **Project / New Hermeneutic Unit** from the main menu to create a new ATLAS.ti project.

Logging In

By default, you are automatically logged in as "Super" (Super User). ATLAS.ti associates the user currently logged in with all objects (like codes, quotations, memos, etc.) created during a session. If you keep the default settings, all objects are 'stamped' with the user name "Super."

Create your own user account!

Especially if you work in a team, we recommend that you create your own user account. This ensure that every object (quotation, code, memo, etc.) is properly identified by its author and can even be queried accordingly. For detailed information, see "User Management."

Ending Your ATLAS.ti Session

To close the session, select **Project / Close** from the main menu. Don't forget to save your project before closing.

Creating, Opening And Saving A Hermeneutic Unit

Creating A Hermeneutic Unit

For more detail on how to best set up a project see "Setting Up a New Project."

When you start ATLAS.ti and a recently used HU is not loaded, you will see "New Hermeneutic Unit" in the caption of the HU Editor. You can start working right away on this new HU.

Alternatively, you can choose **Project / New Hermeneutic Unit** to open a new HU.

To give your HU a name, save it:

- Choose **Project / Save** or **Save as** from the main menu, which opens a standard file dialog.
- Browse to the desired folder where you want to save your HU file and enter a name for your HU.
- Click **Save**.

Make it a habit to always write a short comment for any new HU. Describe the project's goals and intentions. You and your team members will benefit from having this useful information available at all times - HU comments are displayed in HTML and XML output. HU comments are also displayed when reviewing file properties with Windows Explorer. To write an HU comment, click on the comment button in the main toolbar.

Opening A Hermeneutic Unit

To Open A Hermeneutic Unit Using The Standard Windows File Dialog

- From the ATLAS.ti main menu select Project / **Open** (shortcut: Ctrl-O).
- The Open Hermeneutic Unit file dialog appears. The default folder for ATLAS.ti projects is the "Textbank" directory, which is assumed to be your main repository for HUs. But you can store your project file where ever you want, see "Setting Up a New Project."
- Select a HU and click **Open**.

To Open A Recently Used Hermeneutic Unit

- Open the **Project** menu.
- Select an HU from the list displayed at the bottom of the Project menu.

To Open The Most Recently Used Hermeneutic Unit At Start-up

When starting ATLAS.ti, the last used HU can be loaded automatically. This start-up method can be selected under **Tools / Preferences / General Preferences,** tab: **HU Editor.** This is the default setting.

To Open A Hermeneutic Unit Using Drag & Drop

You can drag files from the Windows Explorer or the desktop:

- From the Windows Explorer, your desktop, or any other folder containing HU files, drag an HU onto the HU Editor's main pane or caption.

Protecting The HU Against Concurrent Use (HU .LOK File)

The HU is also protected against accidental concurrent editing.

When you open an HU, a .lok file is created for this HU (e. g. My Project.hpr6.lok) to prevent concurrent editing of a HU. The .lok file is deleted when you close ATLAS.ti.

Sometimes it happens that this file is not deleted (either in case of a system crash, or the user copied the project folder while ATLAS.ti was still open). If you then open the HU the next time, a message pops up telling you that the HU is currently in use by someone and can consequently only be opened in read-only mode.

If you are sure you are the only person using this HU and you have not already loaded it in another window, you can treat this message as a "false alarm" and delete the .lok file for the HU in the Windows file manager.

Saving A Hermeneutic Unit

If you haven't saved your work already, you will be asked to save the HU when you close the HU Editor. If you leave ATLAS.ti without saving, your work of the last session is lost.

- To save the currently open HU, select **Project / Save (As)** from the main menu. The file dialog opens.
- Select a folder and enter a name for your HU.
- Click on the **Save** button. The extension .HPR7 is automatically appended to the file name.

The Hermeneutic Unit file does not contain your documents! If you want to save your entire project, you need to create a copy bundle file. See "How to Create A Copy Bundle." The copy bundle file contains your HU file + all data sources.

Pending Changes

Pending changes are changes in open memo or comment text editors (unless you have saved the text) and in network editors with modified layout that has not yet been saved. If you are currently editing a PD's data source, this would also count as a pending change. If any pending changes are detected when you are about to close or save the HU, you will be offered the choice to accept or discard such changes. By accepting the changes, they become part of the HU and are then saved to disk along with all other changes in the HU.

The extended dialog below lists all pending changes and allows control over which pending changes are to be committed.

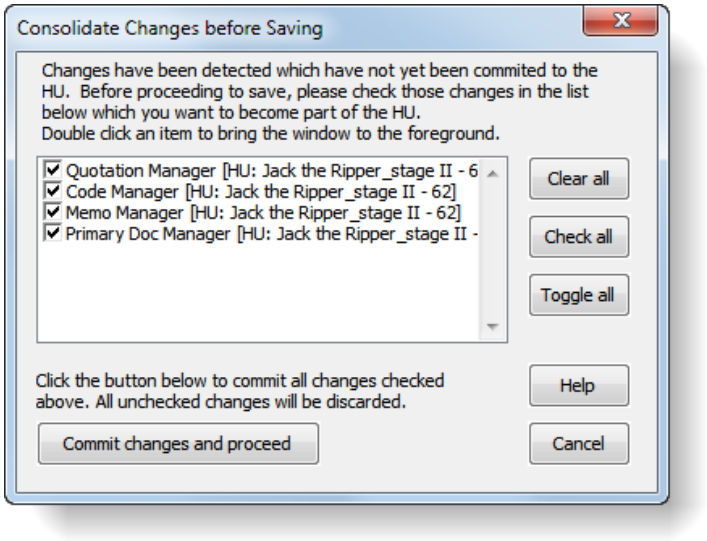

Consolidate Changes before Saving
Changes have been detected which have not yet been commited to the HU. Before proceeding to save, please check those changes in the list below which you want to become part of the HU.
Double click an item to bring the window to the foreground.
Quotation Manager [HU: Jack the Ripper_stage II - 6
Code Manager [HU: Jack the Ripper_stage II - 62]
Memo Manager [HU: Jack the Ripper_stage II - 62]
Primary Doc Manager [HU: Jack the Ripper_stage II -
Clear all
Check all
Toggle all
Click the button below to commit all changes checked above. All unchecked changes will be discarded.
Help
Commit changes and proceed
Cancel

Figure 49: Lists all objects with pending changes

Before taking any further action you can inspect any pending changes in their respective editors simply by double-clicking an item in the list.

Preparing Primary Documents

Primary Documents (PDs) play a major role in ATLAS.ti's framework. They are the interface between a Hermeneutic Unit (HU) and the data. They provide access to data sources, which are usually files stored on the disks of your computer or a network drive. This chapter outlines the steps needed to create, select, and prepare documents so that they will be suitable to use in ATLAS.ti.

Supported Formats

In principle, most textual, graphical, and multimedia formats are supported by ATLAS.ti. For some formats, their suitability depends on the state of your Windows system, particularly in regard to what other software is already installed. Before deciding to use an exotic data format, you should check if this format is available and if it is sufficiently supported by your Windows system.

For a list of formats that are currently supported as primary documents choose **Documents / New / Add Documents ...** from the main menu and click the File Type drop-down list that appears at the bottom left of the window (see " Documents via the File Dialog"). Only the formats listed in the drop-down list are supported by ATLAS.ti. To ensure that files are compatible with your system, assign a few of your documents as PDs. They should loaded and display (or play, when the source is multimedia) correctly. See also the sections below on "Preparing Textual Documents", "Preparing PDF files", "Preparing Graphical Documents", Preparing Audio- and Video Documents" and "Preparing Google Earth Documents".

Files that might prove problematic are multimedia files using exotic "codecs" (software that enables playing of a certain multimedia file format on your computer) and files that rely on RTF converters like doc and docx files. However, ATLAS.ti does provide a file quality check when adding document to a project (see "File Quality Check").

Language Settings

ATLAS.ti can handle documents in pretty much ANY language and character set, although the program interface is, of course, in English only.

Requirements

A first requirement is that language-specific fonts are installed on the computer. If you use special regional languages, this might require that you install an appropriate language pack on your computer.

Next, make sure that the correct language is set in the **Language** tab at the bottom right of the ATLAS.ti window. It is set to *Default* if nothing else is selected.

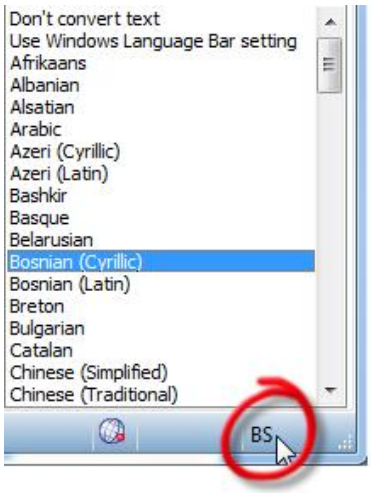


Figure 50: Bosnian (Cyrillic) is selected as language in this case

After you have selected a specific language that is not the default language on your computer, a two letter abbreviation is displayed in the language tab.

User Interface Language

The user interface language can be set under **Tools / Preferences**. See "To Set The User Interface Language."

Font Settings

If characters are not displayed properly in all windows and lists, you may need to adjust the font settings:

- Select **Tools / Preferences / General Preferences** and then the Font tab.

In order to reduce the list of displayed fonts, select only those that are compatible with the language you are using:

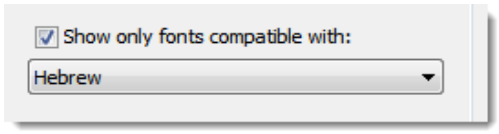


Figure 51: Selecting language compatible fonts

- Select one or more or all object types for which you want to change the font.
- Select a font and appearance (bold, italic) for these object types.
- If you have projects in different languages, you can specify different font themes (see top of tab).

Figure 52: Creating new font themes

InVivo Code Settings

- First check whether the appropriate language is set in the language tab (see above).
- Then select **Tools / Preferences / General Preferences** and then the **Text Editor** tab.
- Select the desired language:

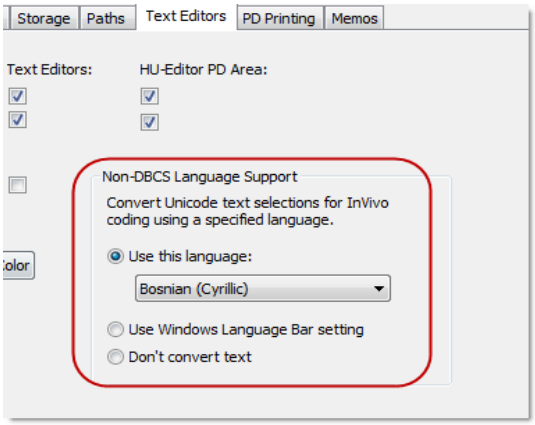


Figure 53: Language setting for InVivo coding

System Settings For Thai And Asian Language Support On Western European And US Windows Systems

In case you are working with Thai and Asian languages on non-Asian systems such as U.S. or Western European Windows, the appropriate language pack needs to be installed on your computer.

- Log in to your computer with full administrative rights.
- Select **Start / Control Panels / Regional and Language Options**.
- Select the **Languages** tab and then the option to install the language files that you need.
- Under the **Advance** tab, select the language in the field "Language for non-Unicode programs".

Size Restrictions

Theoretically, size restrictions do not play a major role due to the way ATLAS.ti handles documents. However, you should bear in mind that your computer's processing speed and storage capacity affect the performance. Excessively large documents can be uncomfortable to work with, even when you have an excellently equipped computer. The crucial issue is not always the file size, but rather, in the case of multimedia files, the length of playing time. For textual documents, the number and size of embedded objects may cause extraordinarily long load times. There is a high likelihood that if a textual document loads slowly in ATLAS.ti, it would also load slowly in WORD or WordPad.

Make your data sources as small as possible but as large as necessary.

For very long texts or multimedia files, navigation can be severely handicapped, e. g., scrolling to exact positions.

We recommend making data sources as small as possible but as large as necessary without breaking passages that belong together. Even with many smaller documents, ATLAS.ti supports unified processing and fast navigation.

Preparing Textual Documents

Supported Formats

ATLAS.ti principally handles documents in plain and Rich Text Format (RTF).

MS Word .doc And .docx Files

For your convenience we also support the inclusion of documents that are not RTF. ATLAS.ti converts these documents for you and -if you work with managed documents- stores the RTF version in the library. Thus, conversion takes only place one time.

ATLAS.ti uses converters installed on your system (as part of the basic Windows or Office installation). In case ATLAS.ti informs you that it cannot add a doc or docx file to your project, you need to download the latest compatibility pack from the Microsoft website and install it. It is available free of charge.

Rich Text

Rich Text supports character- and paragraph-related formatting. Data from other applications can be embedded

RTF (Rich Text Format) is a proprietary text data format developed and propagated by Microsoft, and intended as an industry standard for exchanging documents between different applications. It supports such extensions as character formatting (bold, italic, color, etc.) with different fonts and sizes, paragraph formatting (bullets, indentation, alignment, etc.), embedded objects (graphics, tables, video, etc). and more.

All textual documents are displayed on the basis of Rich Text within ATLAS.ti.

Saving documents as rich text is a standard feature that can be found in most word processing programs. In Word, for instance, this is an option that can be selected in the data type field when saving documents under a different name ("Save as"). We recommend storing documents as “rich text” right away even if they are currently “plain text” and do not contain any formatting.

Plain Text

Of course, plain (not formatted) text documents can always be used, including documents using Unicode. In the course of editing plain text documents within ATLAS.ti, they can be "enriched" and saved with all added formatting.

Preparing PDF Files

In general it is useful to have an understanding what PDF is—and what it is not.

When PDF was invented, it was never meant to be a text format. Its goal was to preserve the same layout for onscreen display and in print. Thus, PDF is perfect if you need the original layout.

When preparing PDFs, you need to pay attention that you prepare a text PDF file and not a graphic PDF. If you do the latter, then ATLAS.ti treats it as a graphic file and you cannot search it or retrieve text.

When scanning a text from paper, you need to use character recognition software (OCR, frequently provided with your scanner) in order to create a text PDF file.

Another issue that needs to be pointed out is that you can retrieve text, e. g. from a coded segment, but the output will be in rich text. Thus, you may loose the original layout. This is due to the nature of PDF as mentioned above. It is a layout format and not really meant for text processing.

File Converter Service

File Convert Service offers a convenient way to batch converts Word document to PDF files and Word DOC(X) files to rtf files.

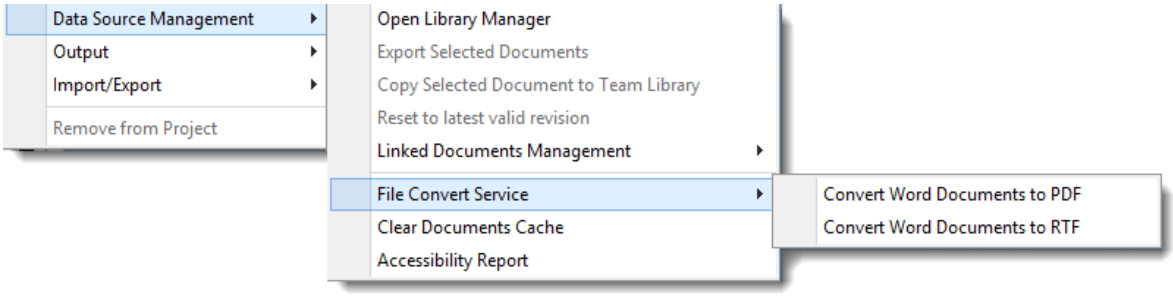


Figure 54: File Convert Service

To use this service, select **Documents / Data Source Management / File Convert Service.**

The File Explorer opens. Select for instance a few DOC files that you want to convert and click OPEN.

ATLAS.ti converts the files for you. The converted versions, e.g. the RTF files, will be stored in the same folder as the DOC files that were converted.

Preparing Graphical Documents

Supported Formats

More than twenty graphic file formats are accepted by ATLAS.ti as valid data sources for PDs, including BMP, JPEG, and TIFF. Scanners often produce TIFF and digital cameras usually create JPEG images. Multipage TIFF files are also supported. They need to prepared in an image editing software that supports such an option.

Size Recommendations

Digital cameras and scanners often create images with a resolution that significantly exceeds the screen's resolution. When preparing a graphic file for use with ATLAS.ti, use image-processing software to reduce the size so that the graphics are comfortably displayed on your computer's screen. If an image does not fit into the primary pane, you may need to use the zoom function available via the mouse wheel or the zoom button when displaying the image using ATLAS.ti.

Preparing Audio- And Video Documents

Supported Formats

ATLAS.ti's multimedia capabilities are built upon directX technology. Both MCI and DirectShow are available to use virtually all files that can be played on your computer. While drivers for AVI and WAV files are installed in any basic Windows system, formats like MOV, QT, AU, SND, MPG, M4A, M4V and MP3 may require a dedicated driver.

Check the Multimedia section in **Help / Tech Support Info / System Report** for a complete list of supported media types.

In case you have problems playing a video file, the likely cause is a missing codec. Codec is an artificial blend of two words, **coder** and **decoder**. Thus, a codec is capable of encoding and/or decoding a digital data stream or signal. When creating a video file, a certain codec is used to encode it; when you want to play it, you need the same codec to decode it. But if this codec is not available on your computer, the file cannot be played. The solution is to go online and to search for a codec package. They are available in a number of languages and are usually available free of charge.

Detailed instructions for preparing video files for use in ATLAS.ti are available from http://www.atlasti.com/uploads/media/video_formats.pdf

Preparing Google Earth Documents

Even with a non-standard data source as the "World" (as seen through Google Earth) we still remain within the Primary Document metaphor. Thus, there is only ONE data source worldwide, and all Google Earth PDs created in any HU all refer to the same data source located at the Google servers.

However, you can also use more than one Google Earth PD (even if there is only world...) in order to create distinct sets of locations, to simulate tours, to simply tell different stories.

The prerequisite for use of the features described in this section is that Google Earth is installed on your computer. See http://earth.google.com/ (or your respective language website) for more detail.

KMZ And KML Documents

KMZ files are zipped KML (Keyhole Markup Language) files, which will start Google Earth and fly you to a specified location.

KML, or *Keyhole Markup Language*, is an XML grammar and file format for modeling and storing geographic features such as points, lines, images, polygons, and models for display in Google Earth and Google Maps.

KML is used to share places and information with other users of Google Earth and Google Maps (and now ATLAS.ti). You can find many KML files that describe interesting features and places On the Google Earth Community site.

Data Management In ATLAS.ti

What Happens When You Add Documents To A Project

Documents Are Copied To A Library

If you use the standard option **Add Documents**, ATLAS.ti creates a **copy** of the document (the data source) and puts this copy into what we call a '**library'.** For alternative options see "Adding Documents to a Project."

The library is a special file repository. By default, it is located in a hidden folder on your computer and you do not have to concern yourself with it. You can either use the provided default library, or create your own project-specific library. For recommendations when to use which library see the section "Document Libraries" below.

Once you have added documents to a library, ATLAS.ti will not need the original source documents any longer. It is, however, good practice to keep a copy of the original documents as a backup.

Unique Fingerprint

During the process of adding documents to a project (applies to all options), each document receives a unique "fingerprint." This way ATLAS.ti has a unique identifier for each of its primary documents which, for instance, facilitates the technical side of merging. The program can be sure that it merges indeed identical documents.

From the user's perspective, this is not always this clear. A common situation is that a user thinks the projects contain identical documents – they have the same content. But for ATLAS.ti these documents are no longer the same because they either have been added to a project on different computers, or they have been added on the same computer to different projects. This results in duplicate documents after merging. In order to solve this, a new menu option as been added: see "Trouble-shooting after merging."

Team projects: In order to ensure that identical documents in fact get the same fingerprint, the project administrator needs to create a Master HU first, add documents to it and then distribute a copy bundle file to all team members. If you do not adhere to this rule, you will end up with duplicates

and multiples of the same document after merging. Should this happen, see "Trouble-shooting after merging." – For important tips and instructions on how to properly set up team projects see section "Setting up Team Projects."

What Happens To Version 5 Or 6 HUs?

If you load a version 5 or 6 project, you will be asked whether you want ATLAS.ti to manage your documents (see "Migrating ATLAS.ti 5 and 6 Projects Migrating ATLAS.ti 5 and 6 Projects ." You can also decide that the HU should not be managed by ATLAS.ti for now. This is necessary, for example, in the process of migrating a team project to ATLAS.ti 7, if team members work at different locations (see "Migrating version 5 and 6 Team Projects to ATLAS.ti 7."

copy bundle

What File(s) Do I Need To Pay Attention To?

Basically, the two files you need to concern yourself with are your HU file and a copy bundle file (your project in a box).

A version 7 project (HU) file has the file extension .hpr7. This file can be stored anywhere and you can move it to any location, as long as access to the library is available. Since documents are added to the library and not embedded in the HU, the HU file still remains rather small.

A second file you will want to attend to is the copy bundle file as a backup of your entire project (see "Project Backup").

How Do I Move A Project To A Different Location?

To move an ATLAS.ti 7 project, create a copy bundle file as usual and unpack it at the new location (**Project / Save Copy Bundle**). On the target computer, double-click the copy bundle file or open ATLAS.ti first and select **Project / Unpack Copy Bundle**.

To make it more obvious what a copy bundle file is, its icon symbolizes your project as a box. The copy bundle file extension is: **atlcb.**

If during the course of the project new files are added to the HU or documents are modified, you can create a partial bundle that only includes those very documents. This reduces the size of the bundle considerably (see How to Create A Copy Bundle).

Once all documents are available in the library at the various locations, all you will need to move back and forth is the HU (.hpr7) file alone.

Can I Still Use Linked Documents?

Yes, if you prefer, you can still manage your documents yourself, i.e. work with **linked** documents as in older versions of ATLAS.ti.

To do so, use the option **Documents / New / Assign External Documents.**

However, our recommendation would be that you transfer your projects to the new managed format since it offers numerous advantages: There is much less to consider in terms of project and data management; files are compressed, so you save hard disc space; all document revisions are tracked; you can edit all text documents (also original doc and docx files); and your entire project is more robust.

Document Libraries

You can chose to work with the standard library or to create a new library for instance for each project. Below are recommendations when to use which library.

Use The Default Library ("My Library")

- For all "normal" single user projects on personal computers
- Distributed team work – Different set of documents (project set-up)
- Optional: for distributed team work – common set of documents

Use A Project-Specific Library

- If the default library location* is reset (=the content is deleted) by your university IT at regular intervals
- If you do not have access to the default library location due to restrictions by your IT department
- When setting up a team project at a shared location
- If you set up a number of different team projects and the data of each project should not all be stored in the same folder
- Optional: For distributed team work with common set of documents
- Optional: For distributed team work with Different set of documents (after merging)

*The default library path is: C:\Users\USER NAME\AppData\Roaming\Scientific Software\ATLASti

Which Library Should I Use For Team Projects

Use the default library:

- Initial project setup at each location: Distributed team work – Different set of documents (after merging you can move the data into a project library)

Use a project-specific library:

- When setting up a team project at a shared location
- When working with sensitive data
- If you set up a number of different team projects, and the data of each project should not all be stored in the same folder

Which Library Should I Use If I Work With Sensitive Data

You have two options:

You can either use the default library and move it to a different location that satisfies the security needs of your project (see **Extras** menu in the Library Manager (see "Moving Library To A New Location"), or you can create a project specific library at a location of your choice (see "Setting up a project Using a Project Specific Library").

The Library Manager

The Library Manager offers access to *the library currently used by the HU*. This is either the default library ("My Library"), or project-specific libraries created by the user. The library manager provides information about the name, type, and size of each imported document, as well as the time when it was imported, the modification date of the source file, and the location from where it was added.

The Library Manager should primarily be accessed by project administrators only.

Use the library manager to export or to delete documents, to move a library to a new location, to create or to delete libraries, or to validate a selected library.

To access the ATLAS.ti libraries, select **Documents / Data Source Management / Open Library Manager .**

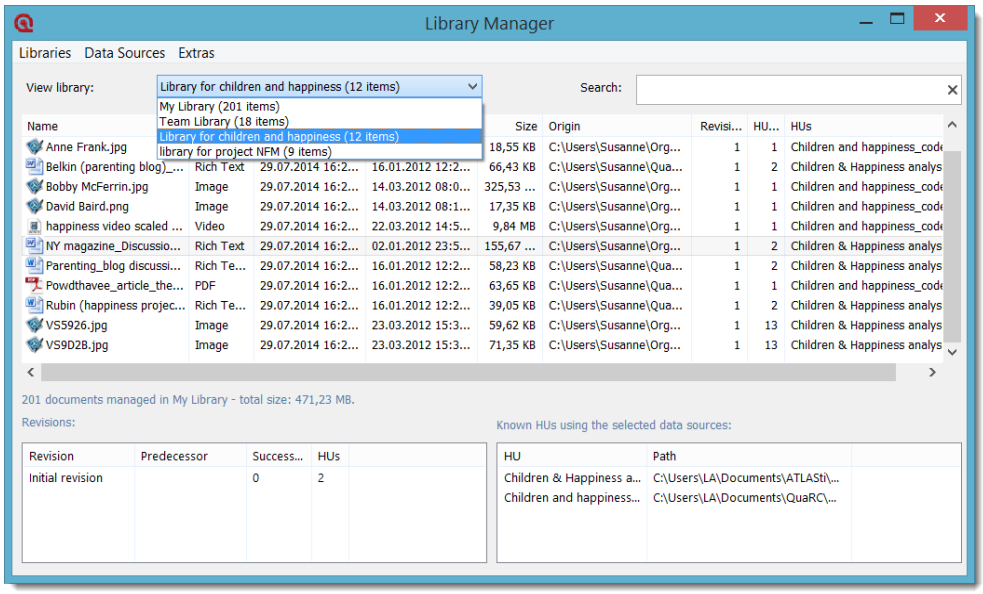

Library Manager
Libraries Data Sources Extras
View library:
Library for children and happiness (12 items)
Search:
My Library (201 items)
Team Library (18 items)
Library for children and happiness (12 items)
library for project NFM (9 items)
Name Size Origin Revisi... HU... HUs
Anne Frank.jpg 18,55 KB C:\Users\Susanne\Org... 1 1 Children and happiness_code
Belkin (parenting blog)_... Rich Text 29.07.2014 16:2... 16.01.2012 12:2... 66,43 KB C:\Users\Susanne\Qua... 1 2 Children & Happiness analys
Bobby McFerrin.jpg Image 29.07.2014 16:2... 14.03.2012 08:0... 325,53 ... C:\Users\Susanne\Org... 1 1 Children and happiness_code
David Baird.png Image 29.07.2014 16:2... 14.03.2012 08:1... 17,35 KB C:\Users\Susanne\Org... 1 1 Children and happiness_code
happiness video scaled ... Video 29.07.2014 16:2... 22.03.2012 14:5... 9,84 MB C:\Users\Susanne\Org... 1 1 Children and happiness_code
NY magazine_Discussio... Rich Text 29.07.2014 16:2... 02.01.2012 23:5... 155,67 ... C:\Users\Susanne\Org... 1 2 Children & Happiness analys
Parenting_blog discussi... Rich Te... 29.07.2014 16:2... 16.01.2012 12:2... 58,23 KB C:\Users\Susanne\Qua... 1 2 Children & Happiness analys
Powdthavee_article_the... PDF 29.07.2014 16:2... 16.01.2012 12:2... 63,65 KB C:\Users\Susanne\Qua... 1 1 Children and happiness_code
Rubin (happiness projec... Rich Te... 29.07.2014 16:2... 16.01.2012 12:2... 39,05 KB C:\Users\Susanne\Qua... 1 2 Children & Happiness analys
VS5926.jpg Image 29.07.2014 16:2... 23.03.2012 15:3... 59,62 KB C:\Users\Susanne\Org... 1 13 Children & Happiness analys
VS9D2B.jpg Image 29.07.2014 16:2... 23.03.2012 15:3... 71,35 KB C:\Users\Susanne\Org... 1 13 Children & Happiness analys
201 documents managed in My Library - total size: 471,23 MB.
Revisions:
Known HUs using the selected data sources:
Revision Predecessor Success... HUs
Initial revision 0 2
HU Path
Children & Happiness a... C:\Users\LA\Documents\ATLASti\...
Children and happiness... C:\Users\LA\Documents\QuaRC\...

Figure 55: The Library Manager

- Select a library by opening the drop-down menu next to *View library:*
- With a click on each column header in the selected library, you can sort the documents by the various headers.
- Use the search field on the top right hand side to look for particular documents.

The pane at the bottom left provides information about data source revisions, i. e., whether a document has already been edited or not.

In the pane next to it, all HUs that use the documents are listed. A double-click opens the HU(s) from here.

Library Manager Menus

Add Project Library

Use this option to register an existing library in the library manager, or to create a new project specific library.

Validate Selected Library

During the process of validating, ATLAS.ti checks the library for inconsistencies. Possible inconsistencies are documents that are still managed by the library, but do no longer exist; or documents that are no longer used by any of the HUs. If inconsistencies are found, you will be informed by the following dialogue:

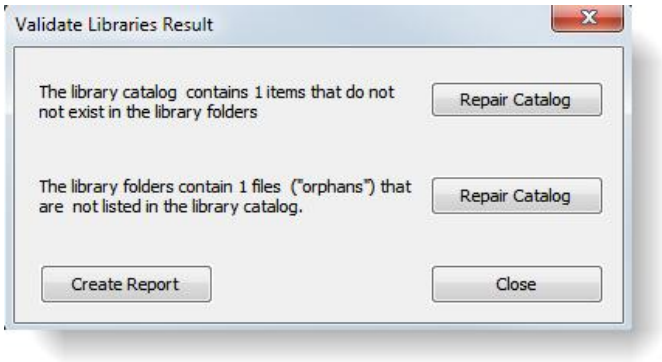

Validate Libraries Result
The library catalog contains 1 items that do not not exist in the library folders
Repair Catalog
The library folders contain 1 files ("orphans") that are not listed in the library catalog.
Repair Catalog
Create Report
Close

Figure 56: Result of a library validation

Click on **Repair Catalog** and close the window.

If no problems are found, you will see the following message:

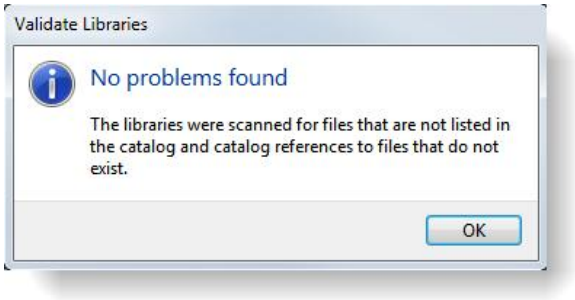

Validate Libraries
No problems found
The libraries were scanned for files that are not listed in the catalog and catalog references to files that do not exist.
OK

Figure 57: Validating: No problems found

Delete Selected Library

Use this option to delete a library that you no longer need or want. If the library still contains documents, you will be warned and you need to confirm the deletion process.

Close Library Manager

Select **Libraries / Exit** to close the Library Manager.

Data Sources Menu; The **Data Sources** menu offers you the options to delete and to export documents from the library.

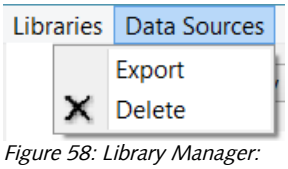


Figure 58: Library Manager: Data Sources menu

Exporting Documents

Select **Data Sources / Export**

The export option is useful if you have been creating or editing text documents in ATLAS.ti and want to export them as Word files. To export documents, select them in the library manager, select the export option and specify a location for storing the exported files.

Deleting Data Sources From The Library

- Select a library and in that library one or more documents
- Select **Data Sources / Delete**

Use the **Delete** option with caution. If you delete documents from the library that are used by one or more HUs, the documents will no longer be available in those HU(s) and you lose all coding, commenting, etc. that you have done!

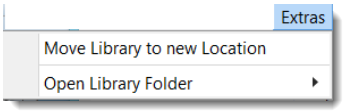


Figure 59: Library Manager: Extras menu

Moving Library To A New Location

Use this option to move the folder that contains the library to a different location. This might be necessary if your IT service regularly rewrites your C drive (where the library folder is located by default). You may also need this option if the location of a project specific library is no longer suitable.

- Select **Extras / Move Library to New Location**

Visiting The Library Folder

The menu option **Extras / Open Library Folder** opens the Explorer and takes you to the folder on your computer where the ATLAS.ti library files are stored.

You will not be able to recognize your original source files. ATLAS.ti has converted them to an ATLAS.ti specific format. **Please Do Not Touch This Folder**.

Copying Documents Between My And Team Library

This option is only available for projects that still use the old library folders, My Library and Team Library. It lets you move documents from My Library to the Team Library, or from the Team Library to My Library.

Open the Primary Document Manager and highlight the document(s) that you want to move. Right click and select **Data Source Management / Copy Selected Documents to...** Depending on where the documents are currently stored, the menu offers the choice to either move them to My Library or the Team Library.

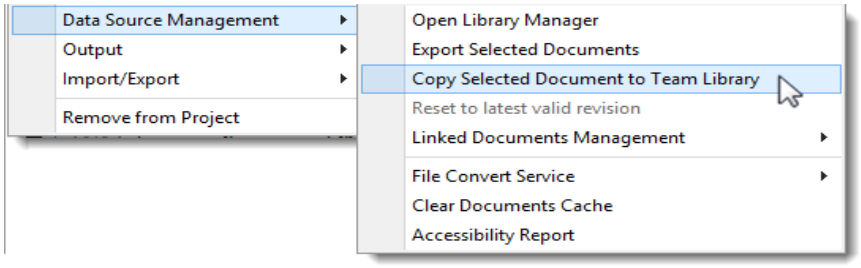


Figure 60: Moving documents between libraries

If you use a project specific library, you can also copy documents to a different library, but not via this menu option. You need to use the option **Project / Set Project Library.** Then select one of the existing libraries to move your documents.

Exporting Documents From The Library

As all documents are copied to the library (unless you work with linked documents), all modifications you make to the document are only reflected in the library document and no longer in your original Word document. Therefore, ATLAS.ti 7 offers an export option:

- Select the documents you want to export in the P-Docs Manager.
- Right-click and selections **Data Source Management / Export Selected Documents.**
- Select a destination where you want to store them and click OK.

You may also use the menu **Data Sources / Export** in the library manager to export documents.

Adding Externally Linked Documents To A Library

If your HU contains externally linked documents and you want to import them into the library, you have two options:

- *Option A:* From the main menu select **Project / Consolidate Documents...**
- *Option B:* Select the externally linked files in the P-Docs Manager.
- Right-click and select **Data Source Management / Manage Selected PDs.**

Trouble Shooting

Documents Cannot Be Loaded

You have been working on your project for a while and "suddenly" your primary documents cannot be loaded anymore. You can still see them in the list of documents in the P-Docs Manager, but the entry is gray. Why did this happen?

It could be that you moved your project to a different computer, but instead of taking a copy bundle file along, you just moved the HU file (see "Project Transfer."

It could be that the library was deleted or does no longer contain documents, e.g. because the drive where the library was located was cleaned-up by your IT department, or you updated your operating system and this wiped out your library, or you re-installed your operating system and are now logged in under a different user name.

If at some point in the past you have created a copy bundle file, your problem is likely to be solved very quickly. Unpack the copy bundle file – exclude the HU file if it is an older version – and in most cases you will be up and running again (see "How To Unpack A Copy Bundle." If you have been editing documents within ATLAS.ti and the copy bundle file does not contain the latest changes, you need to get in touch with the help-desk. They can re-connnect your documents, but you may have to adjust some of the coded segments.

If you do not have a copy bundle file, there is also a solution: You need to copy the original source files that you have been adding to your ATLAS.ti project into the same folder where the HU file is stored. If ATLAS.ti cannot find your documents in the library (or at the original path) it will look for them in the folder where the HU is stored. If found there, you will be asked whether the documents should be added to the library. You need to confirm this for each document that is found.

As for the solution above, this works well if the documents have not been modified (either inside or outside of ATLAS.ti). If this is the case, please contact the help-desk.

After you have re-created your project and all documents can be loaded again, please create a copy bundle as backup! See "How to Create A Copy Bundle."

Adding Documents To A Project

When you add a document to your project, a new Primary Document, which is an ATLAS.ti internal object, is created (named, for example, "P 1"), and the "data source" (e. g., file *text_1.rtf*) is associated with this PD at the same time. This is by far the most common case. Contrary to common belief, neither the document nor its content become part of the project file, the HU, itself. The document is merely referenced either in its original location ("external"/"linked document") or, typically, in the project library ("My Library", or project-specific library).

An exception to this rule are embedded documents. The content of embedded documents is stored within the HU file itself. This is the case when you create a new text document (see "Adding embedded documents (Text files only)"), when you import f4, f5 or Transana transcripts (see "Importing Associated Documents Transcribed elsewhere") and when importing survey data (see "Importing Survey Data ").

More than one data source can be added as PD at the same time (e. g., by selecting multiple files in the file dialog), but there is no need to add all documents at one time. You can add more files during the course of the analytical process.

Bulk-added files are listed in alphabetically order.

For every PD an ID is created consisting of a prefix "P" and a consecutive number. In addition, the name of the data source (file name) is appended to the ID. This name can be changed later for display purposes.

Id	Name
P 1	Powdthavee's article published in "'The Psychologist"~
P 2	Belkin's parenting blog: coments on Powdthavee~
P 3	Belkin's parenting blog discussion~
P 4	Rubin's happiness project: comment on Powdthavee~
P 5	NYT magazine blog: Discussion of "All Joy and No fun" article~
P 6	Happiness proverbs of famous people~

Figure 61: ID and names of primary documents

This "one source - multiple PDs" principle is not restricted to one HU. A data source can be added as a PD (or many PDs) in more than one HU. Each PD, however, refers to exactly one data source.

Thus, if you plan to analyze a single document source from several different perspectives, there is no need to create physical copies of the document and add each of the copies as a PD to the HU. A single data source can be added more than once, which creates as many PDs, each with its own number and ID, but they all refer to the same data source.

Adding Documents Via The File Dialog

To add files:

- From the **Documents** main menu, choose **New / Add Documents....**. Or click on the file loader button in the main tool bar.
- Browse and select one or more data source files to be added to the HU and click the **Open** button.

The selected files are added as Primary Documents and the data sources are imported into the standard library.

We recommend that you do not directly add documents from a cloud storage space. Download them first to a hard drive before adding them to an ATLAS.ti project.

Adding Documents Via Drag & Drop

Adding documents using Drag & Drop may be more convenient when you have different browsers opened on different folders.

- Open the Windows File Explorer. (e. g., by selecting **Tools / Explorer** from the main menu)
- Select the folder from where you want to add files.
- Select one or more files.
- Drag the selected files onto the HU Editor.

Complete folders can be assigned in one step

You may also drag & drop sub folders. This essentially adds all files stored in the sub folders and any sub folders below. Documents that are not compatible with ATLAS.ti are rejected.

You can imagine that this operation can assign an unexpected number of files to your HU. Make sure you know what is in your folders prior to assigning them in bulk.

You can drag arbitrary files (as opposed to the standard technique that filters the files offered). ATLAS.ti however detects incompatible file formats during the quality check (see section File Quality Check).

Adding Documents By Dragging A Link

Add documents by dragging a link directly from your web browser into the PD list field or PD Manager window.

Adding Documents From The Library

If the library already contains documents, you may also add them from the library:

- From the **Documents** main menu, choose **New / Add from Library....**

File Quality Check

During the import process, a quality check takes place. If you add large-sized files, you will be asked whether you want to keep these documents linked rather than to import them.

If your audio files were created with a variable bit rate (VBR), ATLAS.ti offers to convert them into files with a constant bit rate instead. Unless you have very good reasons against it, you should always allow conversion; this increases the precision of quotations.

VBR files can behave very poorly when it comes to playing the exact clips that were captured as quotations.

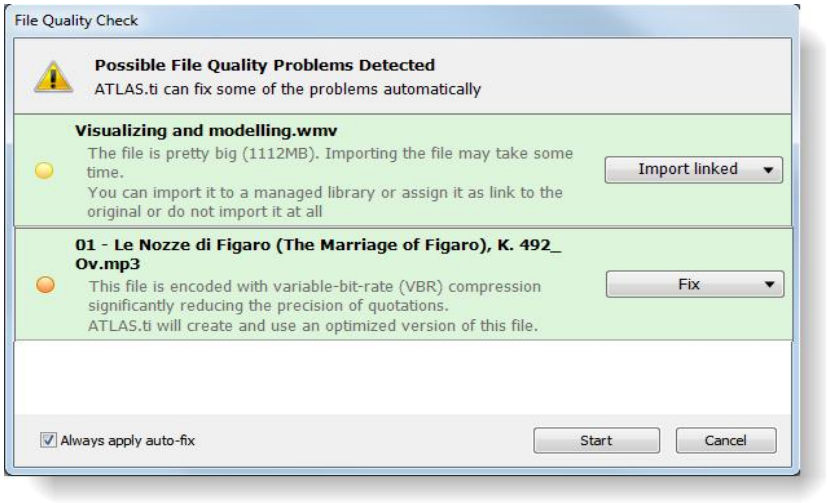

File Quality Check
Possible File Quality Problems Detected
ATLAS.ti can fix some of the problems automatically
Visualizing and modelling.wmv
The file is pretty big (1112MB). Importing the file may take some time.
You can import it to a managed library or assign it as link to the original or do not import it at all
Import linked
01 - Le Nozze di Figaro (The Marriage of Figaro), K. 492_Ov.mp3
This file is encoded with variable-bit-rate (VBR) compression significantly reducing the precision of quotations.
ATLAS.ti will create and use an optimized version of this file.
Fix
Always apply auto-fix
Start
Cancel

Figure 62: File quality check during import

If you add a non-compatible format (e.g., an Open Office document), you will also be informed:

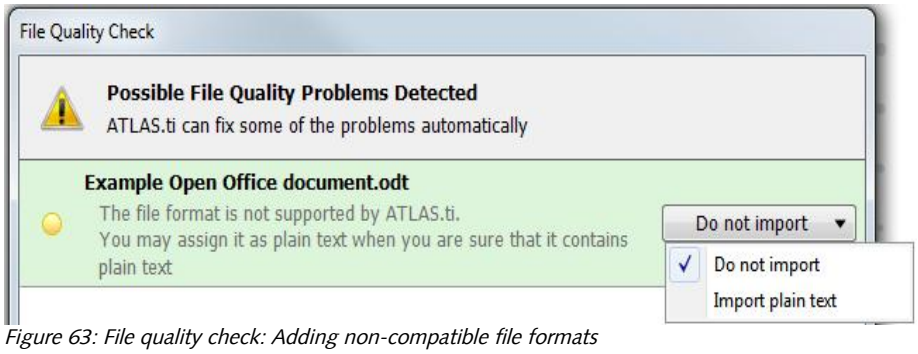

File Quality Check
Possible File Quality Problems Detected
ATLAS.ti can fix some of the problems automatically
Example Open Office document.odt
The file format is not supported by ATLAS.ti.
You may assign it as plain text when you are sure that it contains plain text
Do not import
Do not import
Import plain text

Figure 63: File quality check: Adding non-compatible file formats

If the document only contains plain text, you can choose to import it as text document.

Adding Multimedia Documents

You can add audio and video files using the methods described above.

As the data sources are copied when they are imported into the library, you may want to consider to assign large video files as external documents (**Documents / New / Assign External Documents**). The file quality check will alert you if this is the case (see "File Quality Check").

When adding a video file, preview images are created and displayed on the right-hand side of the video. The size of the preview images is up to 50 x 50 pixels. To create these images, one frame per second is selected. If your video contains fewer key frames, there will be fewer preview images. This has an effect on selecting start and end positions for quotations. The fewer preview images you have, the more difficult it is to set precise start and ending points. Please keep this in mind when preparing your video files. Make sure that your video contains at least one key frame per second.

Depending on the length of the video, creating the preview images may take a few seconds or up to a few minutes. You can already start working on the file. You don't need to wait for all images to be created. Next to the preview images you see the audio wave form (see also Figure 74).

Adding Embedded Documents (Text Files Only)

Embedded documents are stored with the HU file. Thus, the data sources are neither linked as external files nor is a copy stored in the library.

A project solely consisting of embedded documents is suitable for smaller studies with up to approximately 100 documents. It however always depends on the size of the documents.

This approach is also a good option for working with sensitive data material. When saving the HU, the data material is highly compressed and therefore unreadable outside ATLAS.ti. In addition, the HU can be password-protected. This should make unauthorized access reasonably difficult.

Embedded documents are also used:

- when working with associated documents or when importing f4 / f5 or Transana transcripts (see Data Transcription)
- when importing survey data (see Importing Survey Data)
- when using memos as PDs (see Adding Memos as Primary Documents).

How To Create A New Embedded Document

You generate a new empty text document within ATLAS.ti and then you copy and paste the contents that you want to analyze into it:

- Open ATLAS.ti and select the main menu option **Documents / New / New Text Document**.
- Enter a name for the document into the window that opens.
- The document is loaded in edit mode.
- Copy the text you want to analyze and paste it into the primary document.

- Protect the document by quitting edit mode. You will find the edit mode button in the main toolbar towards the right hand side. Click on the pen and select the option **Save and Leave Edit Mode.**
- Proceed in the same way with all other documents that you want to analyze.
- Save the HU file.

Make sure that you always create a backup copy of this file and store it at a safe location!

Adding A Google Earth Document

To create a new GE PD:

- From the Documents or Project main menu, choose **New / New Google Earth PD**. Or click on the file loaded button [see left] in the main tool bar.

ATLAS.ti starts the application Google Earth for you and displays the Google Earth window within the ATLAS.ti editor. Depending on the speed of your internet connection this may take a few seconds.

Create And Adding A Google Earth Snapshot

You can create a snapshot from the geographic region that is currently shown on your screen within the HU editor. This snapshot is automatically added as a primary document.

- From the Documents or Project main menu, choose **New / New Google Earth Snahpshot PD**. Or click on the file loaded button in the main tool bar.
- Then check your list of primary documents. The new GE snapshot has been added at the end of PD list and can now be loaded and treated like an image document.

Adding Memos As Primary Documents

You can also use memos as PDs. They will be turned into embedded documents (see "Adding embedded documents (Text files only)"). This enables you, for example, to apply codes to your analytic notes on the data.

- Select a memo in the Memo Manager.
- Select the menu option **Miscellaneous / Use as Primary Doc.** T

You find more detail on the memo function in the section "Working with Memos."

Rearranging And Renumbering PDs

The ID of a PD determines its position in the list of PDs when in default sort order (by name).

To rearrange PDs (to change their Ids), use one of the following options:

- Rearrange a selected PD only.
- Rearrange one or more PDs using drag & drop.
- Renumber all PDs to make the current sort permanent while eliminating gaps in the numbering at the same time.

Of course, all quotations belonging to a repositioned PD are taken along.

Rearranging A Selected Primary Document

- Select the PD in the Document Manager whose list position should be changed.
- Choose **Documents / Miscellaneous /Change Position** from the main menu.
- Enter a position number after which the selected document is to be moved.

Rearranging Primary Documents Using Drag & Drop

Rearranging PDs via drag & drop is a convenient alternative and lets you rearrange a number of selected PDs concurrently.

- Open the PDocs Manager.
- Select one or more PDs.

- Start to drag the PD(s).
- A dashed bar appears at the current list insertion point.
- Drop the PDs when you reach the desired location for the documents.

Set the sort criterion to ID by clicking on the ID header for an optimal feedback of the renumbering procedure.

Renumbering All Primary Documents

This option becomes useful after you removed several documents from a HU. When removing PDs from a HU, previously assigned IDs (e. g. "P 1") are not "released." This results in gaps in the sequence of PD numbers. You may remove these gaps by renumbering all PDs in the HU using the Renumber All feature.

- Select **Documents / Miscellaneous / Renumber All** from the main menu.

It is not necessary to renumber PDs in ATLAS.ti. But doing so can give reports a cleaner appearance.

Loading And Navigating Primary Documents

Loading Primary Documents

Whenever the content of a PD needs to be displayed, printed, or searched, it accesses its data source (file, memo) and loads the content. This request is often triggered indirectly, e. g., by displaying (or printing) a quotation. For performance reasons, documents are only loaded once; they are "cached" unless this option is turned off.

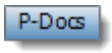
The following lists a few procedures that directly or indirectly load the content of a PD:

- Activating it in the document drop-down list or the PD Manager.
- Activating a quotation in the quotation drop-down list or the Quotation Manager.
- Selecting a quotation for an activated (double-clicked) code or memo.
- Activating a hyperlink in the margin area.
- Using the **Load** option from the context menu of a PD node in a Network Editor.

To Load A PD Using The Drop-down List

- Click on the PD drop-down list.
- Select a PD by clicking on an entry in the list. The selected PD is displayed in the PD pane. If the list does not display all PDs assigned, the scrollbar lets you navigate the list of entries.

To Load A PD Using The PD Manager



- Open the PD Manager by clicking the button to the left of the PD drop-down list.
- Double-click an entry in the PD Manager to load and display the PD.

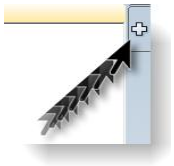
The HU is also protected against accidental concurrent editing.

Content Caching

By default, the content of PDs is "cached," (i. e., kept in memory) unless this option has been switched off in **General Preferences**. The benefit of caching is that the time a document requires to be ready for use is greatly reduced whenever its content is accessed more than once (e. g., when auto-coding text passages). The drawback of caching is that a larger amount of internal memory is required when loading many large documents, which might in turn create performance issues on systems with insufficient memory. Caching can be turned off completely, but you can also empty the cache periodically by choosing menu option **Documents / Data Source Management / Clear Documents Cache**.

With caching turned off, repetitive operations such as auto-coding will be significantly slowed down.

Multi-Document View



When you click on the plus sign on the right hand side of the HU editor, you can open up three more regions for displaying documents. Thus, you can simultaneously view (and work on!) up to four documents side-by-side.

Drag a document from the navigation pane (see Navigation Pane [11]) or the P-Docs Manager onto the region button at the right hand side of the HU Editor to load a second document. Alternatively, click on the region button first to open a new region and then drag a document in the empty region pane.

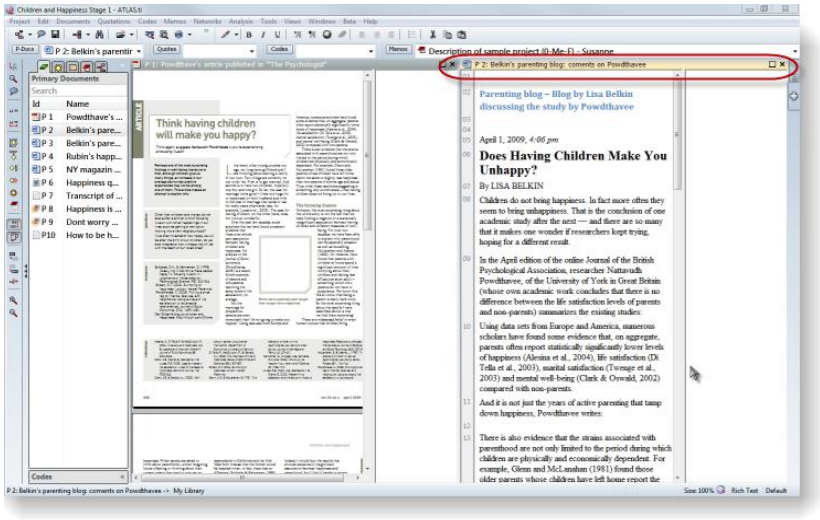

Think having children will make you happy?
Parenting blog – Blog by Lisa Belkin discussing the study by Powdthavee
Does Having Children Make You Unhappy?

Figure 64: HU editor with two document regions

The PD bar is yellow to indicate the current active document. All inactive PD bars are gray. You can turn an inactive document into an active one by either clicking on the gray PD bar, or simply click inside the document pane of the inactive document.

If you only want to compare the documents without seeing the margin area, you can switch the margin area off by selecting the main menu option **Views / Margin Area** or click on the Margin button in the vertical tool bar. This switches the margin area on or off for the currently active document only.

If you want to change the position of the documents, click on a PD bar and drag & drop it into the desired document region.

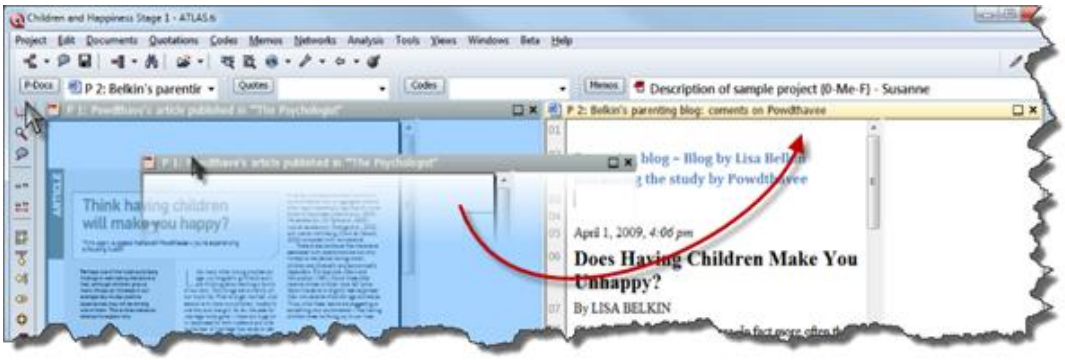


Figure 65: Moving documents between regions

Navigating Within Primary Documents

The available navigation options depend on the media type of the selected PD.

Navigating Within Textual Primary Documents

Textual PDs allow for a variety of options to display different parts of the text:

- You can scroll up and down using the mouse wheel.
- The arrow keys and other navigational keys can be used to move through the text.
- Jump to specific line/paragraph numbers using the **Go-to-Paragraph** button to the left of the PD pane.
- You may also zoom the content via the **Zoom PD** button in the vertical tool bar (see left). To reset the view to 100%, hold down both **SHIFT+CTRL** key while you click on the **Zoom +** button.
  You find a selection of predefined sizes in the Size tab in the bottom right of the ATLAS.ti window:

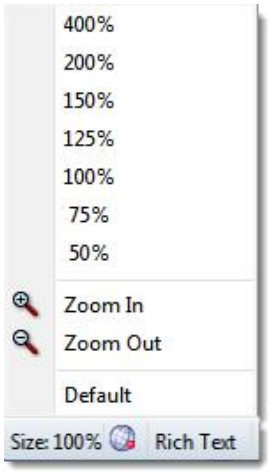


Figure 66: Setting the display size of primary documents

Some Additional Notes On Displaying And Navigating PDF Documents

You can view PDF documents page by page or select to view continuous pages. If your PDF documents contain bookmarks, you can chose whether you want to see them or not and where to position them.

To change the settings for PDF documents, select the main menu option **Tools / Preferences / PDF preferences.**

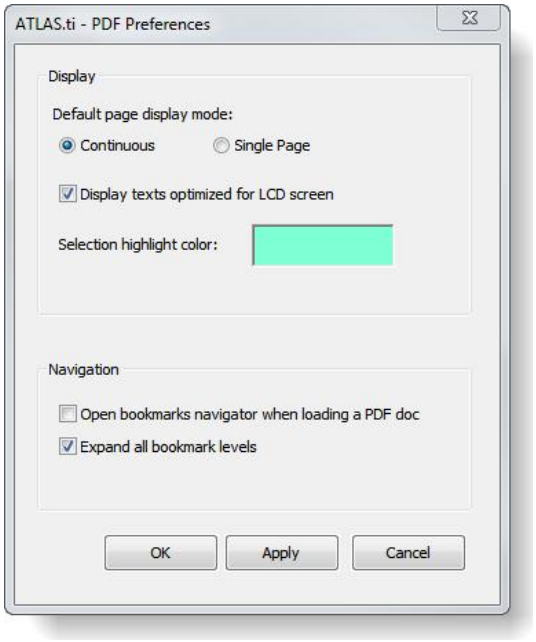


Figure 67: Setting PDF preferences

Click on the colored rectangular area to select a highlight color.

Select the continuous page display option to scroll down the entire PDF document.

If selecting the single page option, only one page at a time is displayed. When moving down and up the scroll bar, a preview image of the other pages is displayed (see below).

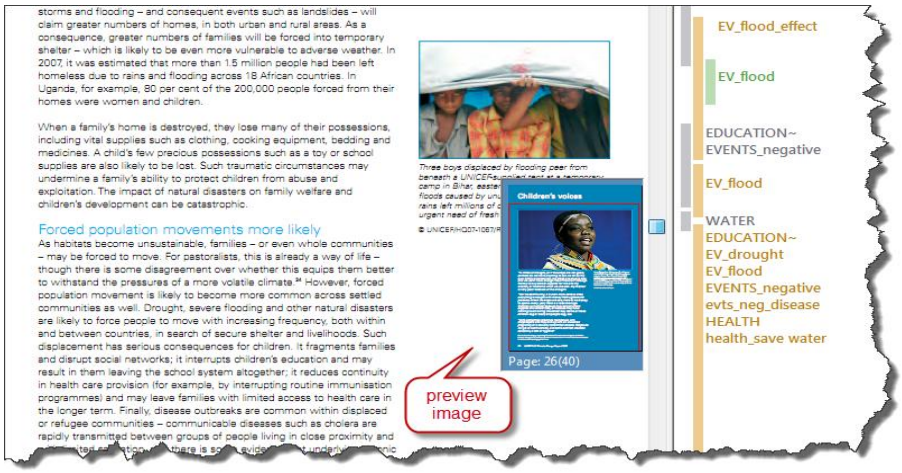


Figure 68: Single page view with preview image

When selecting the single page view, click on the Page button in the status bar to move back and forth. Or click on the preview image to jump to the displayed page.

Figure 69: Page button in the status bar

In case, the PDF document includes bookmarks and you want to display them, select the appropriate option in the Preferences window (see Figure 67). Bookmarks are displayed in the navigation pane:

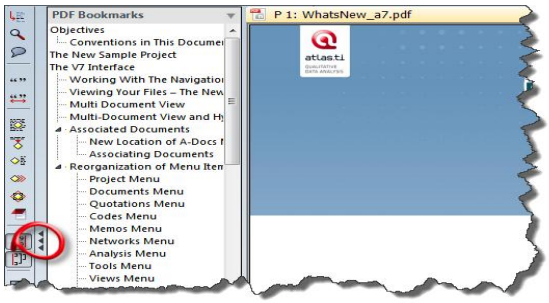


Figure 70: Display of PDF bookmarks

Changing The Display Size Of PDF Documents

If you increase the size of the editor window, the size of the PDF page is enlarged. You can also use the Zoom buttons in the vertical tool bar and the

size tab in the status bar to set the display size of your PDF document. The size tab in status bar shows the actual size of the PD.

When clicking on the Size tab when a PDF document is loaded, you have a few additional options:

Figure 71: Additional display options for PDF files

Navigating Within Image Primary Documents

To change the visible section of a graphical PD:

- Use the scroll bar.
- You can scroll up and down using the mouse wheel.
- The cursor arrows and other navigational keys can be used.

Figure 72: Displaying comments of image documents

When you click on the upper left corner of an image PD, its comment is displayed in a pop-up window:

Figure 73: A red dot indicates that the photo PD contains geographical information

If you see a red dot in the upper left hand corner, the image contains information about the geographical location where the photo was taken. Double-click on the red dot to open Google Maps at this location.

Navigating Within Multimedia Primary Documents

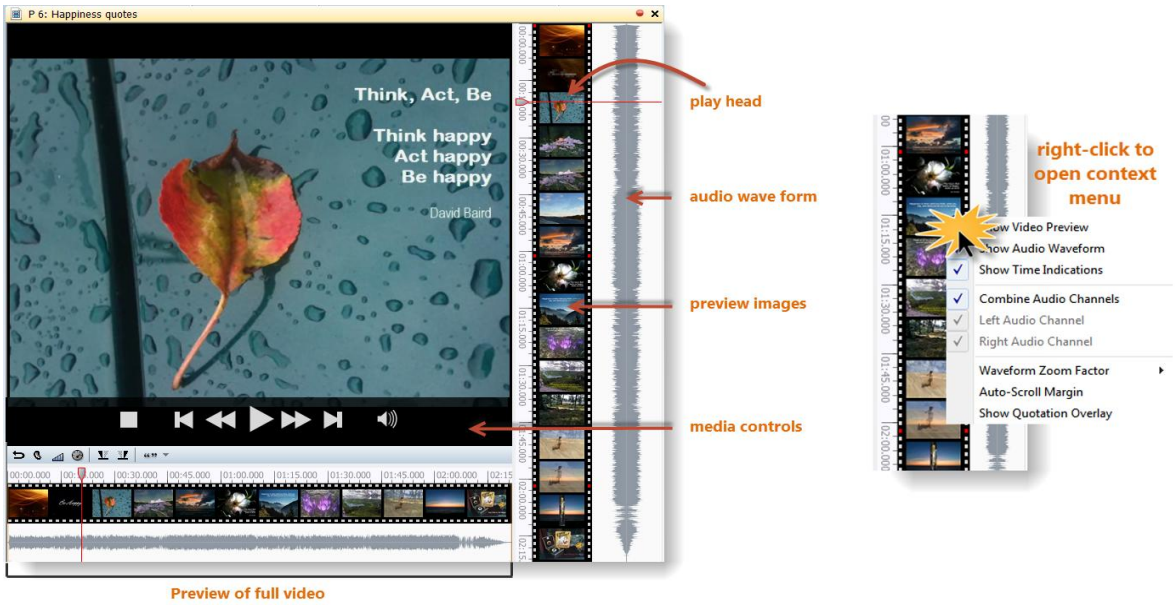


Figure 74: The various aspect of a loaded video document`

If you move the cursor inside the video pane, the media controls appear and you can start, stop and pause the video, skip forward and backwards.

If you right-click on the video preview, you can set a number of display options in the context menu (see Figure 74). You can for instance hide the preview images, the audio waveform or the time indicators that are displayed when selecting a multimedia data segment (see "Coding audio and video documents."

Two orange sliders that appear when you move the mouse pointer over the full preview let you select just the section of the video that you want to see in the margin area (see Figure 75):

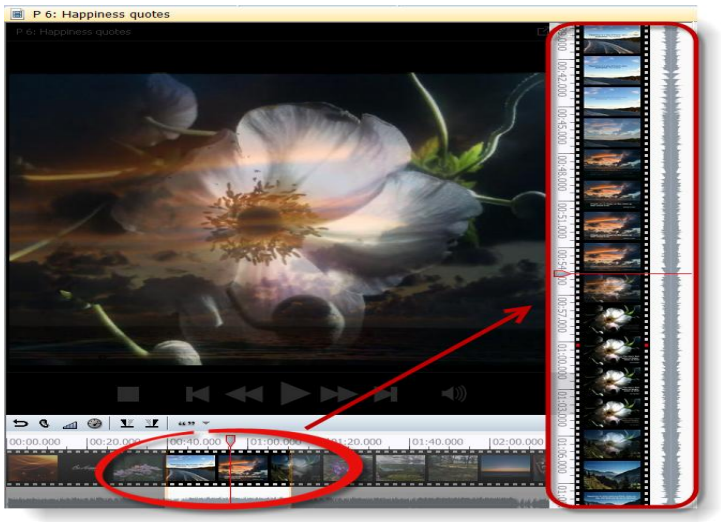


Figure 75: Selecting an area of the video file to be displayed in the margin area

SHORT-CUT KEYS

Play / Pause: Play = **P**, to switch between play and pause, press the Space bar.

Stop = **S**

Removing Primary Documents From A Project

If you remove a PD, the data source to which it refers is not deleted or otherwise affected. However, removing a PD does delete all of its quotations from the HU. As a consequence, all references to other quotations (hyperlinks), other codes, and memos are also removed.

Select the PD to be removed from the HU.

Choose **Documents / Remove from Project** from the main menu. Or select a PD in the Primary Document Manager, right click on the document and choose **Remove from Project** from the context menu.

Data Transcription

The A-Docs function, introduced in ATLAS.ti 6, allows you to not only transcribe your data within ATLAS.ti, but to also link documents to each other in such a way that they can be viewed synchronously. This means you can read your transcript and listen to the audio file hearing the original tone of voice or viewing the segment in the video file. While in the midst of your analysis, you can mark a segment or a quotation of an associated document and instantly listen to the original audio or view the video. The audio/video file stops at the end of the marked segment. You can also use the association points as navigation device, e. g., to enter at a particular point in the file or to easily jump around.

Adding And Associating Multimedia Files And Transcripts

Below the process of adding a blank transcript file to an ATLAS.ti project and the process of transcription is explained step-by-step:

- Add the audio file or the video file that you want to transcribe: From the Documents or Project main menu, choose **(New /) Add Documents…..**
- Create a a new internal document for the transcript: **Documents / New / New Text Document.**
- Enter a name for the transcript. It is immediately loaded in the HU editor in edit mode.
- Load the audio or video PD into the second region of the HU editor (see "Multi-Document View").

Next you need to associated the two files with each other.

- From the main menu select **Documents / Associated Docs / Associate with PD from Region.**

A new association is automatically created and the Association Editor opens. The default name is S 1, S 2, S3 and so on. For a better overview, it is recommended that you replace the default name with a unique name:

- Select **File / Rename** from the Association Editor's menu and overwrite the default name. Click **OK** to confirm.

You can also associate documents by dragging & dropping them from the PDocs Manager into the Association Editor. To open the Association Editor chose **Documents / Associated Docs / Open Association Editor.**

One Hermeneutic Unit can include as many associations as you like, one association for each set of associated documents, and two documents per set. The following combinations are currently supported: audio– text and video–text. In order to keep track of your associations, each association has an ID, and a unique name can be given as well.

Setting Rewind Time

When transcribing, it is often useful to listen once again to the part one just has transcribed. Therefore you can set an interval from 1 to 5 seconds. When starting the multimedia file, the file automatically rewinds the time interval that you have set.

To set the rewind time, click on the **Audio** menu of the Association Editor and select the desired rewind time.

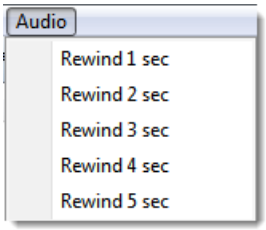


Figure 76: Set rewind time

Start Transcribing

The new empty document should still be loaded and in edit mode. If not, load it again and enter edit mode (click on the pen button in the main tool bar, see also "Editing Primary Documents."

Check your settings in the Association Editor as shown in Figure 77 below.

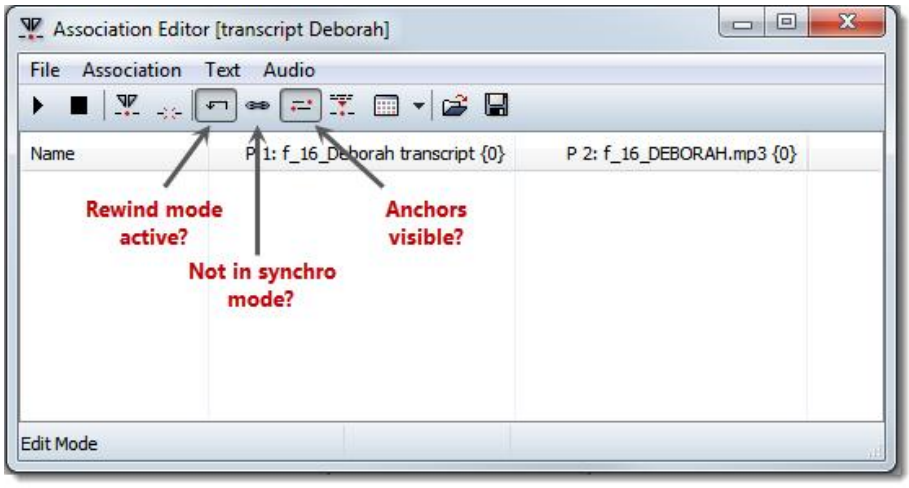


Figure 77: Settings for transcription

The default setting is for anchors to be always displayed. You can deactivate this option in the Association Editor via the menu **Text / Show Anchors**.

Start the playback of the associated multimedia file via the **F4** key or click the appropriate button in the Association Editor as shown left.

Alternatively, you can also use a foot switch. The foot switch needs to be configurable to the F4 key for starting and stopping a multimedia file.

Listen to whatever part you can remember; then press the **F4** key again.

Type what you heard.

Press the **F8** key or click or the anchor button in the Association Editor to set an anchor. The association anchor links the matching parts in the documents. A red dot is displayed within your text and an entry is added to the Association Editor.

Press **F4** to play the audio file again.

Listen to whatever you can remember, press **F4**, type the text, press **F8**, then **F4** again.

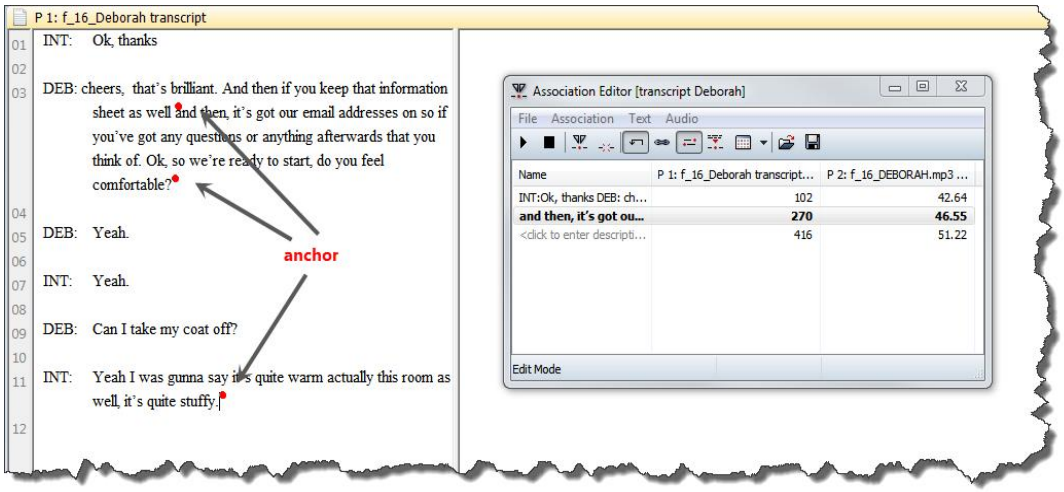

P 1: f_16_Deborah transcript
INT: Ok, thanks
DEB: cheers, that's brilliant. And then if you keep that information sheet as well and then, it's got our email addresses on so if you've got any questions or anything afterwards that you think of. Ok, so we're ready to start, do you feel comfortable?
DEB: Yeah.
INT: Yeah.
DEB: Can I take my coat off?
INT: Yeah I was gunna say it's quite warm actually this room as well, it's quite stuffy.
anchor
Association Editor [transcript Deborah]
File Association Text Audio
Name
P 1: f_16_Deborah transcript...
P 2: f_16_DEBORAH.mp3 ...
INT:Ok, thanks DEB: ch...
102
42.64
and then, it's got ou...
270
46.55
<click to enter descripti...
416
51.22
Edit Mode

Figure 78: Transcript with association anchors

The closer the distance between two association anchors, the more accurate will be the synchronization. However, it is not required to set anchors at any particular or prescribed intervals, for instance at the end of every line of text. If you mark longer segments, automatic interpolation is used to synchronize the text with the associated multimedia file.

Save the text from time to time by clicking on the edit pen selecting the **Save Only** option.

When you are finished with your transcript or want to take a break, select the option **Save and Leave Edit Mode**. Then save the HU (**Project / Save**).

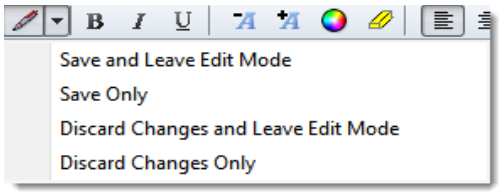


Figure 79: Edit sub menu

You can either use the functions key **F4** to start and stop a recording, or use a foot switch. This saves about 30% of transcription time. You can use any foot switch that can be configured to work as the F4 key (see for example the web page of the developers of the free transcription software f4: http://www.audiotranskription.de/english/)

Insert Anchors Automatically

If you want ATLAS.ti to set anchors automatically at the end of each paragraph, select **Text / Auto insert anchor with return** in the Association Editor.

Delete Association Anchors

If you set an anchor accidentally, you can correct this by clicking **F8** a second time, or click on the remove anchor button (see left).

Another way to delete anchors is via the Association Editor: Select an anchor in the editor and then either press the **Del** key on your keyboard or select the menu option **Association / Delete Anchor**.

Undo

Setting or deleting an anchor can be reversed via the undo option:**Association / Undo, Ctrl+z)**

Naming Anchors

You can use the list of anchors in the Association Editor to navigate through the associated documents. For this purpose, anchors can be named.

To name an anchor, select it, click on the name field and enter a name.

You can also use the currently highlighted text as name. In order to do this, click **F9** or select the menu option **Text / Grab Text as Name** (see Figure 78).

Adding Documents Via The Association Editor's Menu

First you need to create a new association: select **File / New** from the Association Editor's menu. A new association is immediately created. The default names are S 1, S 2, S 3, S 4, etc.

Load the primary document that you want to transcribe (see "Loading Primary Documents." Then select the menu option **Association / Insert Primary Document.**

Now **load** the file that you have prepared for transcription. Select the menu option **Association / Insert Primary Document** again. Now the two documents are associated.

Deleting Associations

The active association that is shown in the editor can be deleted via the menu **File / Delete.**

Associating Two Already Existing Documents

When you already have a transcript that is not yet associated with its audio or video file, you can synchronize the two documents by going through the transcript and setting anchors. This is how it works:

Create a new association in the Association Editor and add the two documents (see above).

Start the multimedia file with **F4**, listen to it or view it. Stop it at a certain point (press **F4** again), locate the matching text in the transcript, and set an anchor at the end of the matching text passage (press **F8**).

Start the multimedia file again with **F4**, listen to it or view it. Stop it at a certain point (press **F4** again), locate the matching text in the transcript, and set an anchor at the end of the matching text passage (click **F8**). And so on....

As you can open the two documents side by side, you can move through the documents quite quickly. It should not take much longer to create the associations than the actual duration of the multimedia file.

Importing Associated Documents Transcribed Elsewhere

Currently, ATLAS.ti supports the import of transcripts produced with f4 (Windows), f5 (Mac) and Transana. Time markers from the transcript are automatically converted to association anchors. The connected audio or video file is also imported.

For more information on f4/f5 see:
http://www.audiotranskription.de/english/f4.htm

For more information on Transana, see: http://www.transana.com/

Preparing Transcripts In F4/F5

When preparing a transcript in f4_2012, it is possible to change the format for time stamps. However, for import in ATLAS.ti, the default format is needed: 00:00:00-0 (hours:minutes:seconds-milliseconds).

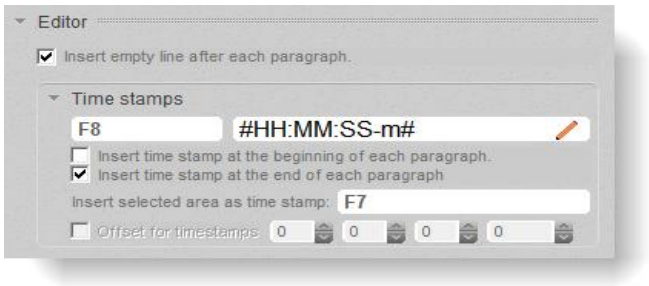


Figure 80: Settings for time stampes in F4_2012

After preparing and saving the transcript in F4/F5 do not open it in Word and make changes in Word. This may corrupt the recognition of the time stamps in ATLAS.ti. – Also do not change the file names of either the transcript or the multimedia file. If you do, open the transcript in f4 and re-associate it with the multimedia file.

Preparing Transcripts In Transana

When preparing a transcript in Transana, you need to save it as external file (**File / Save Transcript as...**). Before you do that you need to **activate the time code values** as shown in Figure 81. Hide the time code indexes (red symbol). You can still import a document that shows indexes, but they will just be displayed as an additional symbol in addition to the red dots that mark the time stamps in ATLAS.ti and thus are more disturbing than helpful.

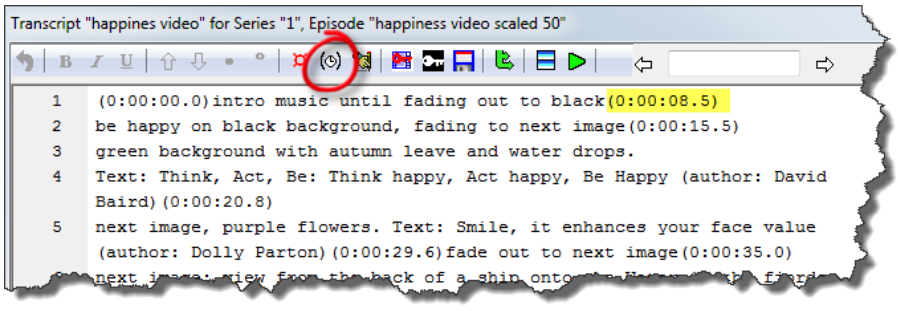

Transcript "happines video" for Series "1", Episode "happiness video scaled 50"
1 (0:00:00.0)intro music until fading out to black(0:00:08.5)
2 be happy on black background, fading to next image(0:00:15.5)
3 green background with autumn leave and water drops.
4 Text: Think, Act, Be: Think happy, Act happy, Be Happy (author: David Baird)(0:00:20.8)
5 next image, purple flowers. Text: Smile, it enhances your face value (author: Dolly Parton)(0:00:29.6)fade out to next image(0:00:35.0)

Figure 81: Setting before saving a transcript in Transana

How To Import Transcripts

To import a transcript, select the main menu item **Documents / New / Import Transcript** or **Import Transcripts (External Media)*.** A file browser opens.

*Use the second option, if your multimedia files are quite sizable and you do not want to import them into the library. When choosing *Import Transcripts (External Media)*, the multimedia files are linked to the HU file. In order not to loose the connection between the HU and your external media files, either store them into the same folder as the HU file, or do not move them to another location during the duration of the project. Please also do not rename the files.

Browse to the location where the transcript is stored, select it and click on the open button. If the associated multimedia file is not automatically recognized, you will be asked to select it. The file browser opens again and you can select the multimedia file.

The transcript is added as an internal document (see "Adding embedded documents (Text files only)"). The multimedia file is added to the library the HU is currently using, unless you selected the option to keep them externally linked.

A new association is created in the Association Editor, the two documents are added to this association and the time code values are converted to anchors.

Load the transcript into the HU editor and click on the red circle at the top right-hand side of the document to load the associated multimedia file (see Figure 82 below).

If you move externally linked files to another location or rename them, the HU will not longer be able to find them.

Working With Associated Documents

All A-Doc functions can be accessed either via the main menu **Documents / Associated Docs** or from the Association Editor. A Hermeneutic Unit can contain unlimited numbers of associations, but only one can be active at any given time.

Associations between documents are automatically activated when a document is loaded in the HU Editor. In cases where several associations exist, the first available is automatically selected. You can also select a specific association via the **File / Use...** menu in the Associations Editor.

When you load a document that has an associated file, a red circle is shown in the PD bar (see Figure 82).

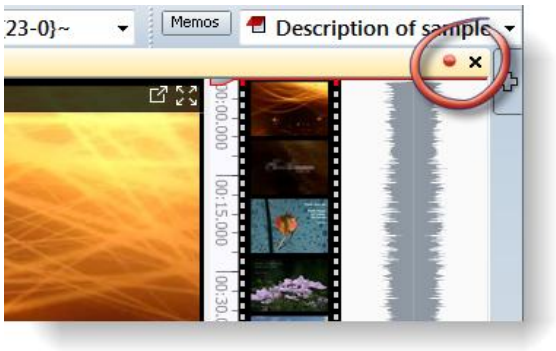


Figure 82: Click the red dot to load the associated document

Click on the red dot; the associated document is loaded into the document region next to it.

Play Selected Text

If you select a piece of transcript or a quotation in an associated text, the selected linked audio or video can be played.

- Select Synchro Mode: **Documents / A-Docs / Synchro Mode** (or F3).
- Highlight a a piece of text and select either the menu item **Documents / A-**

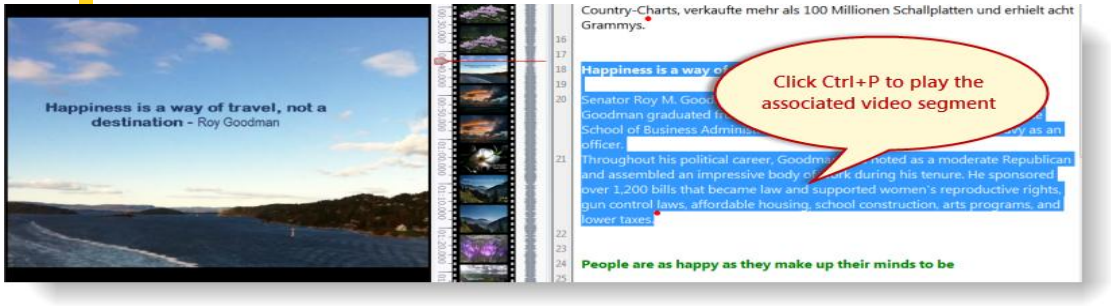

Happiness is a way of travel, not a destination - Roy Goodman
Country-Charts, verkaufte mehr als 100 Millionen Schallplatten und erhielt acht Grammys.
Click Ctrl+P to play the associated video segment
People are as happy as they make up their minds to be

Figure 83: Playing associated audio or video segments

- **Docs / Play selected Text** or press the key combination **Ctrl+P.**

The associated video or audio recording will be played back from the correct position. Playback stops at the end of the selection. The accuracy of selected text playback depends on the precision and the number of the available anchors.

Synchronization Mode (F3)

In non-synchronous mode, the documents are independent from each another. "Moving around" in either one of the documents does not affect the other.

When you switch to synchronization mode, associated documents display *synchronously*, i. e., they are positioned next to each other. Since synchronous playback is not useful or desired in all situations, synchronization mode can be switched on and off.

The non-synchronous mode is particularly important for setting anchor points: In synchronous mode, associated multimedia documents follow the movements of the mouse cursor. This makes positioning anchors difficult.

In non-synchronous mode, it is however still possible to click on an anchor in the Association Editor and jump to the associated data segment.

ACTIVATING AND DEACTIVATION SYNCHRONOUS MODE

Synchronous mode can be enabled and disabled via the main menu entry **Documents / A-Docs / Synchro Mode** and via the **F3** key.

In the Association Editor, synchronous mode can be selected via the menu item **Association** or the **Synchro** button in the tool bar.

WORKING WITH SYNCHRONOUS MODE

Moving the mouse cursors in the text or clicking a text passage causes associated multimedia documents to be repositioned. Click F4 to start playback at this position.

The opposite case - i. e., moving the cursor in the multimedia document — causes no cursor change in the text document. This would hamper your text work.

KARAOKE MODE (CTRL+F4)

Synchronous display is possible in „Karaoke mode“. This mode lets you follow multimedia content and text documents at the same time. The multimedia document sets the pace while the current passage is highlighted in the text document. Because of the moving text selection, normal text-work tasks such as creating quotations are not possible in this mode.

There are several ways of highlighting text in Karaoke mode. To choose one of it, select them from the **Text** menu of the Associations Editor:

Highlight Section: Highlights the section between two anchors.

Highlight Line: Highlights the entire line of text that corresponds to the position of the “lead” document.

Highlight Word: Highlights the word that corresponds to the position of the “lead” document.

Highlight Character: Highlights the character that corresponds to the position of the “lead” document.

Load both the multimedia file and the associated text document.

To start the Karaoke mode, press **Ctrl+F4** This activates both the **Synchro** mode and the **Karaoke** mode.

Press **F4** to start the multimedia document. Both will now be shown side by side. In the text document, the passage is highlighted that is currently played back.

Importing And Exporting Associations

Associations are saved together with the HU and remain affiliated. For exchange between ATLAS.ti projects, they can also be exported and imported as files:

In the Associations Editor, select menu items **File / Export...** and save the file. The active association is saved as a file. This file is in XML format and has the extension ".syn".

The import function (**File / Import...**) lets you open files that were created in the above fashion and activates them as new associations in a different HU.

Importing Survey Data

These days a lot of surveys are conducted online. A positive side effect is that (a) all data is immediately available in digital format and (b) respondents are often willing to provide lengthy answers to open-ended questions. On paper-and-pencil surveys this was rarely the case. Statistical programs like SPSS™ do offer options to analyze open ended questions, but basically you end up encoding each answer with a number. A proper qualitative analysis of the answers is not possible. This is now possible in ATLAS.ti.

A typical work flow for working with survey data looks like this:

Figure 84: Work flow when importing survey data

Online surveys can be created using a number to tools. What most of these tools have in common is that you can export your data as Excel™ file. And this is what you need to prepare for import in ATLAS.ti (see below). Based on specific prefixes that you add to your variable names, ATLAS.ti interprets the column headers and cells of the Excel™ table in various ways and turns them into primary documents, the contents of the primary documents, primary document families, quotations, codes, comments and code families.

Data are imported case-based. This means each row of the Excel™ table that is imported from the online survey tool is transformed into a primary document.

How Survey Data Is Treated In ATLAS.ti

To represent the results of an online survey within the framework of ATLAS.ti in the most accurate and complete manner, a few basic requirements need to be considered.

A survey broadly consists of the name of the survey, the questions, the answers for each respondent. Questions can be of different types like single choice questions (yes/no, or offering more than two options), multiple choice questions, or open ended questions.

Within ATLAS.ti these concepts are mapped as follows:

Survey Concept	ATLAS.ti Concept
Open-ended question: question answer	 Code (and code comment) Content of a quotation
Single Choice 0/1	PD Family
Single Choice > 2 options	PD Family from question plus value
Multiple Choice	PD Family from question plus value

This does not mean that you cannot turn a multiple choice question into a code, it all depends on how you define the columns in the Excel table. If you turn single or multiple choice questions into codes, you later need to do some automatic coding based on the response choices available in the questionnaire.

Always remember that ATLAS.ti is not a software for analyzing statistical data, although it is possible to add information from traditional quantitative questions. It might also be a good idea to be already acquainted with the ATLAS.ti analysis tools like the query tool and its scope function ("Query Tool"), the co-occurence table explorer ("Code Cooccurrence Tools), and the codes-primary-documents-table ("Codes-Primary Documents Cross-Tabulation") before preparing the Excel™ table for import.

A general recommendation is to include the following variables from the online survey:

- Variables describing the respondents, i. e. the classical demographic variables like age group, gender, profession, educational level, income groups, etc.. Turn those variables into PD families.
- Responses to open-ended questions. Turn those into coded segments.
- Selected other variables like answers to single or multiple choice questions that are important in relation to analyzing the open-ended questions.

Preparing An Excel™ Table For Import

The following table shows the list of all available prefixes that you can to add to the column headers in Excel™ in order for ATLAS.ti to interpret the cells in various ways.

Prefixes and their interpretation	
Prefix	**Result**
!	defines the column to list the names of the primary documents
^	defines the column to list the primary document's author
&	defines the primary document's date, expects ISO8601 format, see: http://www.cl.cam.ac.uk/~mgk25/iso-time.html Example: 4th of February 1995 or 1995-02-04 in ISO8601 format = YYYYMMDD = 19950204
<	Ignore this column, use to exclude stuff inserted by the survey tool
.	Creates a PD family from the field name. Currently the cell needs to contain the number 1, or the words Yes or Ja to be applied. Use for single choice questions where respondents can answer yes or no (or encoded as 1 and 0). Only the responses encoded with yes/ja or 1 become part of the PD family.
:	Creates a PD Family from the field name plus cell value. Use for single choice question like gender.
#	Creates a PD Family from the field name plus the actual cell value. Use for single choice questions with more than two answer options or for multiple choice questions.
	Add no prefix to all open ended questions. The text in the column header is used as code. To avoid very long code name, use a short form to indicate the question and add the full question as comment (see next row)
::	All text entered after two colons is added to the object's comment field. This can be applied to cells resulting in PD families or codes.

!caseID elect whole table	&dateTime	^Name	.Academic	.Army:Did you serve?	:Sex	#Favorites::What bands do you listen do regularly?	Tell us a dream	Open End::Now how do I make a question be interpreted as open-ended?
Case 1	20100414T1 20000	Michelle	0	1	female	Beatles, Stones	I was walking on the roof of a 12-story building....	This is a lengthy response to a question that may elicit looooong answers.
Case 2	20100415T1 71000	Hans	1	0	male	Stones, Scorpions	I am sorry, I don't remember any dreams at all.	Quite simple: every field name (question) that has no prefix is an open-ended question be default.

Figure 85: Sample table ready for import

By importing the sample table, we get:

- The name, date and author of the resulting PD
- Two dichotomous families **Academic** and **Army.** The following comment is added to the PD Family "Army": Did you serve?

- Two families **Sex::male** and **Sex::female**
- Four families **Favorites::Beatles**, **Favorites::Stones**, etc. For the PD families the following comment is added: What bands do you listen to regularly.
- Two codes **Tell us a dream** and **Open End.** The following comment is added to the comment field of the code "Open End": Now how do I make a question be interpreted as open-ended?

How To Import Survey Data

Prepare an Excel table as explained above.

You can add the prefixes already when you prepare the online survey, or afterward by editing the the resulting Excel table. The drawback of adding the prefixes to the survey is that such early applied mark-up also displays in the online survey interface and your respondents might wonder about the funny characters at the beginning of questions.

Editing the downloaded Excel table prior to importing it into ATLAS.ti has the advantage of not displaying unusual formatting characters to the user. A disadvantage is that you need to do this every time you download the table, for instance, because you are checking incrementally and not all respondents have filled out the questionnaire yet.

Mark all cells in the table and format them as Text (right click on the highlighted table and select the option "Format Cells".

Save the table (as xls or xlsx file).

Close Excel (or at least the document that you want to import).

Open ATLAS.ti and select **Documents / New / Import Survey Data**.

The import procedure starts and ATLAS.ti informs you when all data are imported.

During the import, one primary document is created from every row. Unlike "normal" PDs who get their contents from files, these primary documents need to have their content (data source) created as well. These data sources are embedded within the HU (see "Adding embedded documents (Text files only)").

The creation of the textual contents is done as follows: Each row is scanned from left to right, column by column. Each cell's content belonging to an open-ended question field is appended to the currently built document (case). In addition, each piece of appended text is also referenced as a *quotation* automatically coded with the current question.

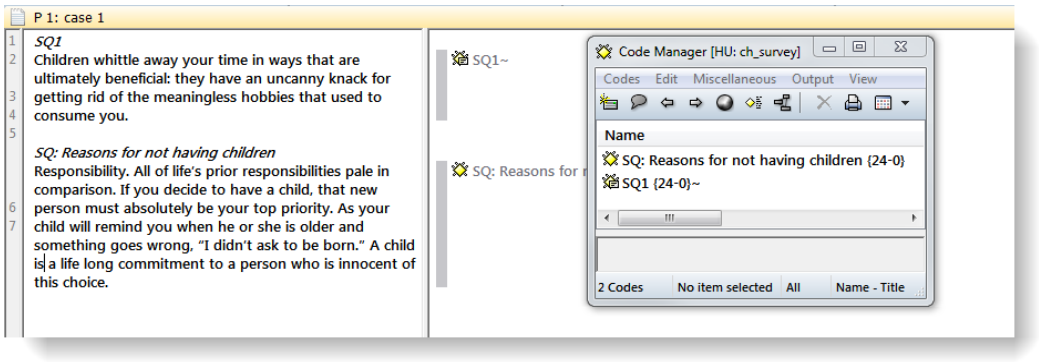

P 1: case 1
SQ1
Children whittle away your time in ways that are ultimately beneficial: they have an uncanny knack for getting rid of the meaningless hobbies that used to consume you.
SQ: Reasons for not having children
Responsibility. All of life's prior responsibilities pale in comparison. If you decide to have a child, that new person must absolutely be your top priority. As your child will remind you when he or she is older and something goes wrong, "I didn't ask to be born." A child is a life long commitment to a person who is innocent of this choice.
SQ1~
SQ: Reasons for
Code Manager [HU: ch_survey]
Codes Edit Miscellaneous Output View
Name
SQ: Reasons for not having children {24-0}
SQ1 {24-0}~
2 Codes
No item selected
All
Name - Title

Figure 86: Pre-coded data by question

Those columns defined as variables are turned into PD Families. See the section on "Family Life" for further information. If you select a case, all applicable families are highlighted (see Figure 87).

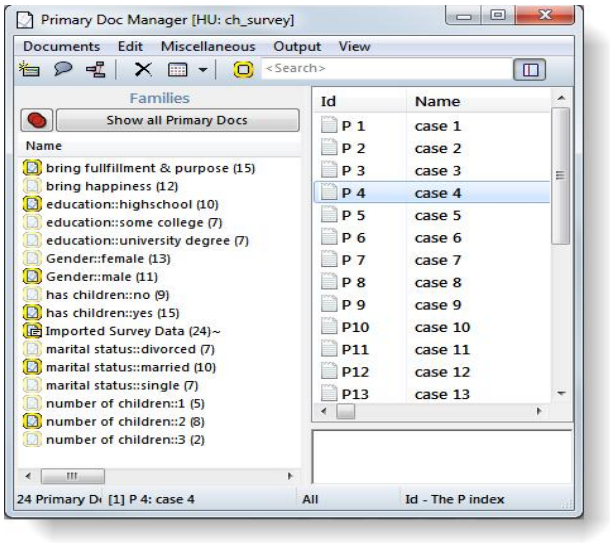


Figure 87: P-Docs Manager with imported survey data and the corresponding families

Special families are created for all imported PDs and codes to make filtering for the survey material easy.

> Save the Hermeneutic Unit. As default name the name of the Excel file is used. If you import the same table repeatedly, rows with already existing PDs are ignored. This way, you do not have to wait until the last respondent has filled out the questionnaire.

Analyzing Survey Data

In order to analyze survey data, you should get acquainted with the following features and functions of ATLAS.ti:

- Primary Document Families, especially their use as data attributes (see Family Life and Working with Variables: Primary Document Families.
- Basic coding techniques to add some additional codes to the precoded responses (see below).
- Code Families (see below)
- The Codes-Primary-Documents-Table (see below)
- The query tool and the scope function (see below)
- Creating and working with super families (see below)
- The Co-occurence-Table-Explorer (see below).

Setting Up A New Project

If you click on the main menu **Documents / New /** …. you find a number of to a project options to add documents to an ATLAS.ti project:

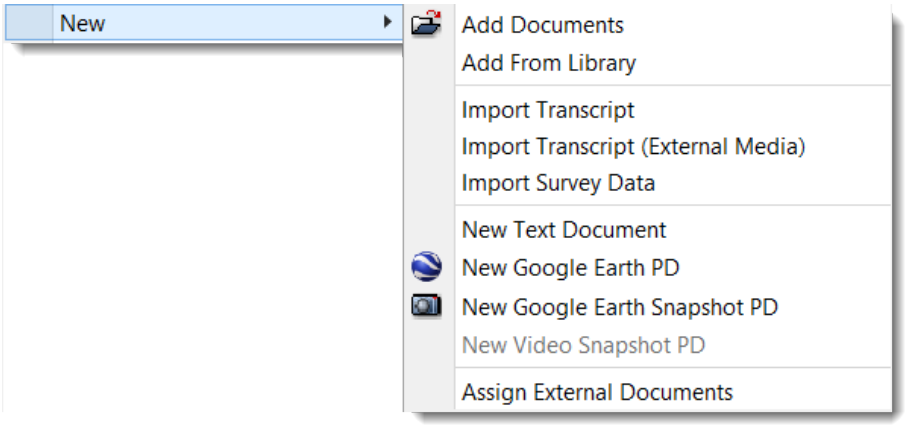


Figure 88: he various options to add documents to an ATLAS.ti 7 project

- **Add Documents:** Your documents will be copied and imported to the standard library. If you want to create your own project specific library, see "Setting Up Project Specific Libraries."
- **Add From Library:** Use this option if you want to use documents that are already in the library.
- **Import Transcript and Import Transcript (External Media):** Import documents that you have transcribed using f4 (Windows), f5 (Mac) or Transana. The transcripts are turned into an embedded documents and the associated media file are either added to the library or remain external as linked files (see "Importing Associated Documents Transcribed elsewhere."
- **Import Survey Data:** Import survey data based on an Excel spread sheet. Case-based data are imported as embedded documents (see "Importing Survey Data ."
- **New Text Document:** Create a new embedded text document (see "Adding embedded documents (Text files only)."
- **New Google Earth PD:** Create a new Google Earth PD (see Adding a Google Earth Document).
- New Google Earth Snapshot PD: Create a snapshot from the currently loaded GoogleEarth location as image PD (see Create and Adding a Google Earth Snapshot).

- New Video Snapshot PD: Create a snapshot from the current video frame as image PD.
- Assigning external (linked) documents like you are used to from older versions of ATLAS.ti. The recommened scenario is the HUPATH option, which means you store HU file and your documents in one folder.

Setting Up A Single User Project Using The Standard Library

Open ATLAS.ti and create a new Hermeneutic Unit: **Project / New Hermeneutic Unit**.

Select **Documents / New / Add Documents,** or drag and drop a folder / selected documents from the File Explorer onto the HU Editor (see "Adding Documents Via Drag & Drop."

During the data import process a file quality check is carried out (see above).

After you have added documents to your project, save the project file to any location: **Project / Save**.

We recommend to save the HU file on a local drive or on a server. Please do **NOT** save HU files in the cloud due to the nature of cloud locations to synchronize data across different devices. This may endanger the integrity of the HU file.

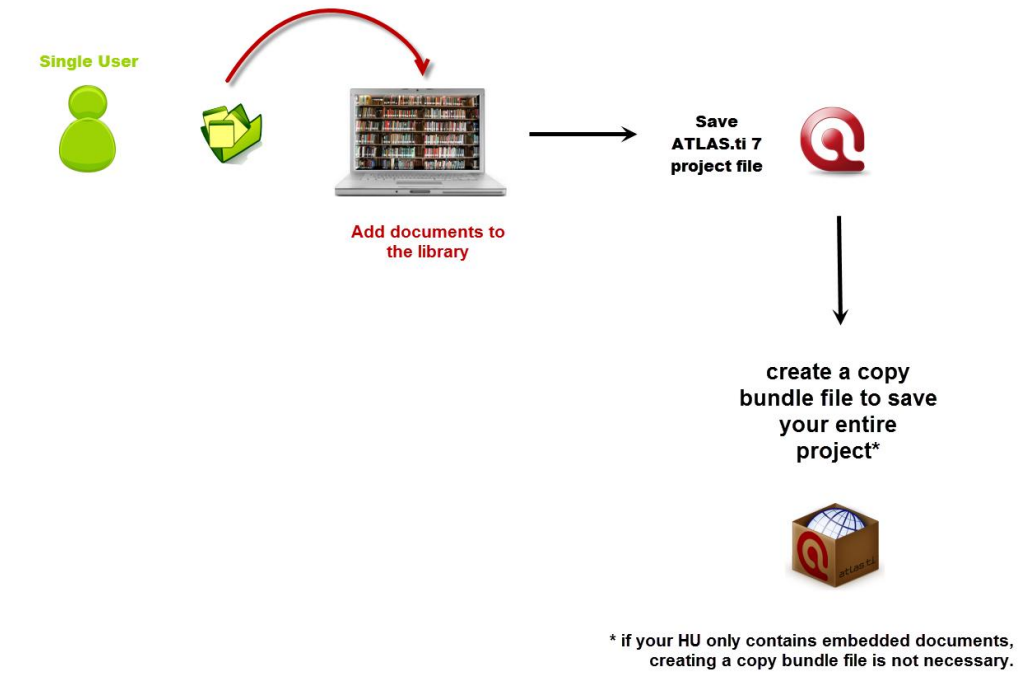

Single User
Add documents to the library
Save ATLAS.ti 7 project file
create a copy bundle file to save your entire project*
* if your HU only contains embedded documents, creating a copy bundle file is not necessary.

Figure 89: Project setup for single users

It is recommended to create a copy bundle file as backup: **Project / Save Copy Bundle.**

Setting Up A Project Using A Project Specific Library

You may want to use this option, if you work with sensitive data that you need to store at a particular location, or if there are issues using the default location for the standard library (which is a folder under C:\Users\USER NAME\AppData\Roaming\Scientific Software\ATLASti\....)

If you want to start a new project using a project specific library:

Open ATLAS.ti and select: **Project / New Hermeneutic Unit.**

Select **Project / Set Project Library.**

Click on the button **Create or Select Library folder.**

Next, choose a library path. The file manager opens at the location ...*Scientific Software/ATLAS.ti*. We recommend to create folders for project specific libraries under the ATLAS.ti folder. However, if you wish to chose another location, this is possible.

Select **Select folder** (the button shows the language of your Windows system) and enter a name, or select an existing folder. Click **OK**.

Confirm that you want to connect your HU to this new library.

Next, add documents to your project: **Documents / New / Add Documents...**

After you have added documents to your project, save the project file (HU), to any location: **Project / Save**.

Create a copy bundle file as backup: **Project / Save Copy Bundle.**

Changing A Project That Uses My Library Or Team Library To Use A Project-Specific Library

The single Team Library concept was abandoned with version 7.5. You will only have a Team Library if you set up your project prior to updating to version 7.5.

Open a project that uses either *My Library* or the *Team Library*.

From the main menu select **Project / Set Project Library**.

Click on the button **Create or Select Library folder**.

Next, select a library path. The folder tree opens at the path ...*Scientific Software/ATLAS.ti*. We recommend to create folders for project specific libraries under the ATLAS.ti folder. However, if you wish to chose another location, this is also possible.

Select **Create a new folder** and enter a name, or select an existing folder. Click **OK**.

Confirm that the HU should be connected to the selected library and that all documents of this HU are copied to the selected library.

Setting Up Team Projects

When working in teams, multiple scenarios are possible:

- A team analyzes a common set of documents across different sites. For this scenario, the *standard library or a project specific library* can be used.

- Initially, the documents at each site are different. Every person analyzes a sub set of the data before merging the HUs. Use the *standard library* for this scenario.
- A team analyzes a common set of documents, which are stored on a server that everyone can access. Create a *project specific library* on the server.

Commonalities Of Team Projects

One person in the team should take on the role of **project administrator**. The designated project administrator usually sets up the project, distributes it to the other team members, collects the sub projects and merges them.

Unless there are good reasons to work with linked documents, we recommend to add all documents to a **library**.

For the following situations, we recommend to work with **project specific libraries**:

- team members want or need to access documents from a shared location
- coders work on different projects at the same time, but should only have access to the data of projects they are assigned to
- your data corpus contains sensitive data that should only be accessed by those assigned to a project

All team members best create an ATLAS.ti **user account** on their computer and log in with their user name. You find the User Management menu under the Tools menu (see also "User Management."

Setting Up Project Specific Libraries

Open ATLAS.ti and create a new project: **Project / New Hermeneutic Unit.**

Select **Project / Set Project Library**.

Click the button **Create or Select Library Folder.** Create a new folder and enter a name, or select an existing folder. Click **OK**.

The folder tree opens at the location ...*Scientific Software/ATLAS.ti*. This is a sub folder under *AppData/Roaming*, which is a location provided by Microsoft Windows for applications to store their data. Unless you want to store the library on a server, it is recommended to create your libraries at this location.

Confirm that you want to connect your HU to this new library.

All newly added documents will be added to this newly created library.

Distributed Team Work – Common Set Of Documents

If initially a common body of data should be made available to the team, it is **mandatory** that one person sets up the project and distributes it to the other team members in form of a copy bundle file.

Figure 90: Team project setup if all team members access a common data

Tasks Of The Project Administrator

- Open ATLAS.ti and create a new Hermeneutic Unit: **Project / New Hermeneutic Unit**.
- To add documents, select **Documents / New / Add Documents**, or drag and drop a folder / selected documents from the File Explorer onto the HU Editor (see "Adding Documents Via Drag & Drop."
- Save the project file (the HU) to any location: **Project / Save**.
- Create a copy bundle file (**Project / Save Copy Bundle**) and distribute it to all team members (see "How to Create A Copy Bundle."
- Ask all team members to create an ATLAS.ti user account on their computer and to log in.

If your project contains linked documents, the recommendation is to store these documents in the same folder as the HU file (i.e. HUPATH).

Tasks Of The Team Members

- Create an ATLAS.ti user account on your computer and log in with your user name. You find the **User Management** menu under the **Tools** menu (see also "User Management."

Install the copy bundle file that you received from the project administrator: **Project / Unpack Copy Bundle** (see "How To Unpack A Copy Bundle").

In case the project administrator has set up the project with a project specific library, you need to select a location on your computer for this library. It can be a different location on each computer.

During the process of installing the copy bundle file, you can rename the Hermeneutic Unit, e.g. by adding your name or initials. This is recommended as all sub HUs should have a different name. Another option to save the HU under a different name is after unbundling the copy bundle file via: **Project / Save As...**

After each work session, save the HU (**Project / Save**) and create a copy bundle file as backup (**Project / Save Copy Bundle**).

Continuous Project Work (Documents Are Not Edited)

Tasks Of The Team Members

After an agreed-upon interval, each team member sends his/her project to the project administrator for merging. As none of the documents has been modified, it is sufficient to send the HU file.

Tasks of the project administrator

Merge the various HU files you receive from the team members (see "Merging Hermeneutic Units."

Create a new Master HU and distribute the new Master file to the team members.

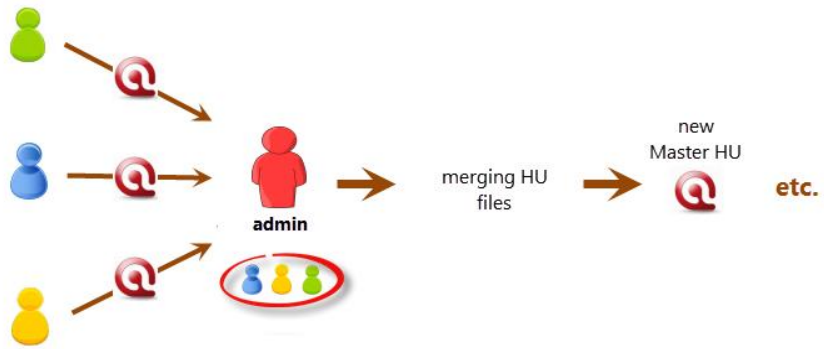


Figure 91: Continuous process of merging and distributing

Tasks Of The Team Members

- Rename the new Master file by adding your name or initials to the file name and continue your work.

Continuous Project Work (Documents Are Edited)

Please note: Even under the managed document concept, editing the same data source at two different locations should not be permitted. If you do so anyway, this primary document can no longer be merged. You will end up with two versions of it. Thus, if editing by team members is permitted, you should formulate strict guidelines as to who is allowed to edit which document.

Tasks Of The Team Members

If documents are modified, the data sources have to be sent back to the project administrator for merging. This is done in form of a copy bundle file. Just sending the HU file is not sufficient.

- Create a copy bundle file and send it to the person who volunteered to be the project administrator (**Project / Save Copy Bundle**).

Tasks Of The Project Administrator

- Install all copy bundle files (**Project / Unpack Copy Bundle**).
- Merge all HUs and saves the outcome as new Master HU (see "Merging Hermeneutic Units."
- Create a copy bundle file and distributes it to all team members.

Distributed Team Work – Different Set Of Documents

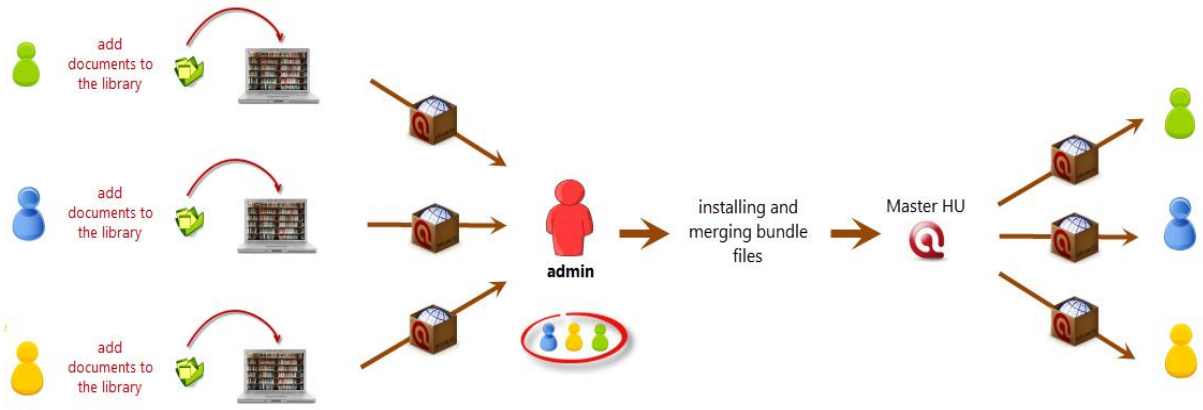


Figure 92: Team project setup if different data sources are analyzed at every site

Tasks Of The Team Members

Use the standard library to set up the project at each location. If the default location of the standard library is not suitable, move the standard library to a location location or your choice (see "Moving Library To A New Location."

- Create an ATLAS.ti user account on your computer and log in under your user name. You find the **User Management** menu under the **Tools** menu (see also "User Management."
- Set up your sub project by creating a new Hermeneutic Unit (**Project / New Hermeneutic Unit**) and add documents:
- **Documents / New / Add Documents**, or drag and drop a folder / selected documents from the File Explorer onto the HU Editor (see "Adding Documents Via Drag & Drop").

It is recommended to use the **standard library** at this point in the process. If a project specific library should be used, the project administrator can move the documents to a project specific library after the first round of merging.

If each person starts out with a project specific library, all documents will be copied to the library of the target HU during the process of merging. See "Merging Hermeneutic Units."

- Save the project file to any location: **Project / Save**.
- Save a copy bundle file as backup: **Project / Save Copy Bundle**.
- Begin to work on your sub project.

Continuous Project Work

After an agreed-upon interval, each team member sends their work to the project administrator for merging in form of a copy bundle file: **Project / Save Copy Bundle.**

Tasks Of The Project Administrator

The project administrator can be someone from the team who volunteers to take on the task of merging and re-distributing.

Install all copy bundle files: **Project / Unpack Copy Bundle.**

Merge all HUs and saves the outcome as new Master HU (see "Merging Hermeneutic Units."

If desired, the project administrator can now create a project specific library and set the merged project to this library (see "Setting Up Project Specific Libraries").

Create a copy bundle file (**Project / Save Copy Bundle)** and distribute it to all team members.

Tasks Of The Team Members

Unpack the copy bundle file that you receive from the project administrator: **Project / Unpack Copy Bundle**. Rename the HU file during this process (see "How To Unpack A Copy Bundle").

If the project administrator has moved the documents to a project specific library, you need to specify where this new library should be stored on your computer.

Continue to work on the project.

Repeat the above cycle as often as necessary to complete the analysis.

Team Projects Using A Shared Location

If all team members access the data at a shared location like a network drive, it is recommended to work with a **project specific library.**

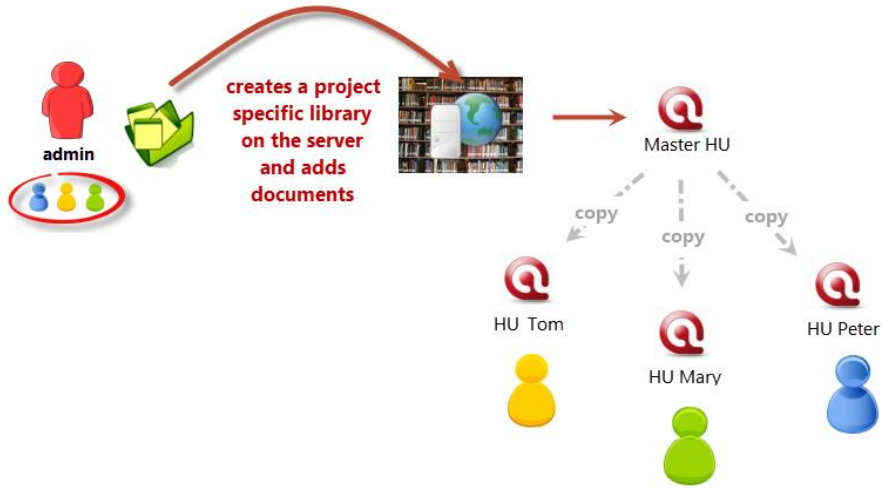


Figure 93: Team projects using a shared location

Tasks Of The Project Administrator

- Start ATLAS.ti and create a new Hermeneutic Unit: **Project / New Hermeneutic Unit**.
- Create a new library at the shared location: **Project / Set Project Library** (see "Setting Up Project Specific Libraries."
- Add documents to the project: **Documents / New / Add Documents,** or drags them from the File Explorer into the HU editor **(**see "Adding Documents Via Drag & Drop"**).**
- Save the Hermeneutic Unit (can be to any location): **Project / Save.**
- Save the project in form of a copy bundle file as backup: **Project / Save Copy Bundle.**
- Make the Master HU file available to all team members, e.g. in a special folder for HU files on the server.

If your project contains linked documents, the recommendation is to store these documents on the server in the same folder as the HU file (i.e. HUPATH, see ATLAS.ti 6 manual).

Tasks Of The Team Members

- Create an ATLAS.ti user account on your computer and log in under your user name. You find the **User Management** menu under the **Tools** menu (see also "User Management").
- Rename the HU file that you receive from the project administrator, e.g. by adding your name or initials to the file name.
- Open the HU file and begin your work.

If you cannot load the documents, make sure that you have access to the shared location that contains the library which has been set up by your project administrator. In case there are issues, please contact your project administrator.

Editing primary documents can be allowed when storing the library at a shared location that all team members can access. If a modified document is loaded in another HU of another team member, the codings in this HU are adjusted automatically (see "Editing Primary Documents in Team Projects."

Continuous Project Work

After an agreed upon interval, the project administrator merges the HUs of all team members. If team members store their HU files locally, they should move them to a shared location for merging (see Figure 94 below).

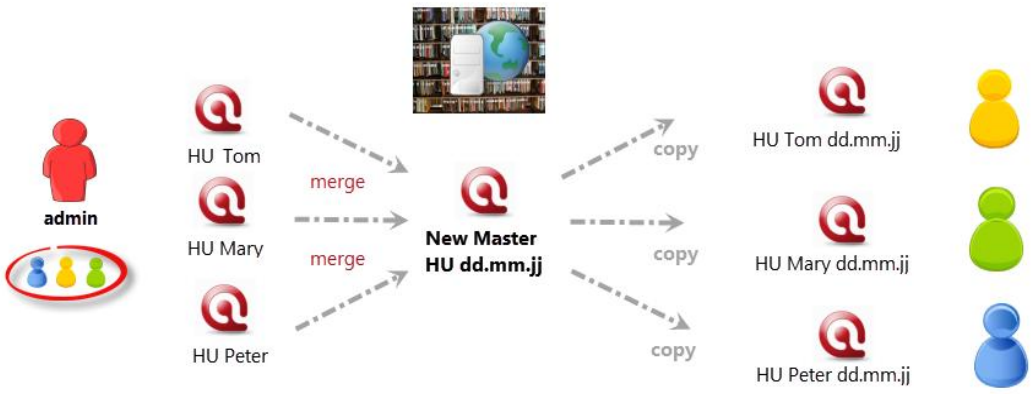


Figure 94: Merging and distributing server based team projects

Tasks Of The Project Administrator

- Merge the various HU files
- Create a new Master HU and save it at at the shared location under a new name, e.g., by adding the date. The old Master HU can be moved to a backup folder.

Create a copy bundle file as backup (**Project / Save Copy Bundle**).

Tasks Of The Team Members

Make a copy of the new Master file, rename it by adding your name or initial and continue your work.

Team Projects Using Shared & Remote Location

If some of the team members have access to a shared location, but others have not, the suggestion is to work with a project specific library. You can set up the project specific library at the shared location and the team members that have access to the shared location work on the project as has been described above ("Team Projects Using a Shared Location").

All team members that work at a remote location receive a copy bundle file. When unpacking the bundle, they will be asked to specify a location for the project library. As they do not have access to the shared location, they select a location on their local drives (see "Distributed Team Work – Common Set of Documents" and "Tasks of the team members."

Thus, the project uses the same project library (same name) on all computers – but the actual location where this library is stored is different.

Project Backup

Please also see the following document for a summary description:
http://downloads.atlasti.com/docs/howto_v7_project_backup.pdf

HU Backup

Automatic Backup When Saving

The default setting is that ATLAS.ti creates a backup copy of an existing HU before overwriting it on **Save.** Backup files have the same name as the HU file plus an additional extension:

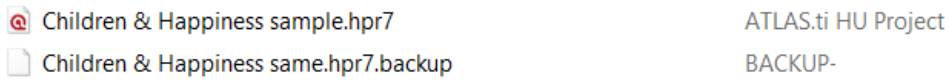


Figure 95: Current HU file and its backup

If the full file extensions are not displayed on your computer, you recognize the backup file by its file type (BACKUP-file) and the white icon:

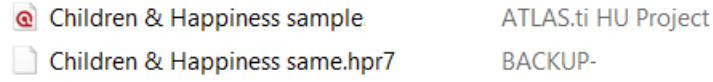


Figure 96: Current HU file and its backup if you do NOT see file extensions

In case you need to continue to work with the backup file, e.g. because you lost your HU file, you simply need to rename the backup file by removing the extension “backup”. If you do not see the full file name as shown in Figure 96, right-click on the file, select Properties and rename the file in the properties window.

To change the default setting, select **Tools / Preferences / General Preferences,** Tab: **Storage** from the main menu, or click on the **Preference** button in the main tool bar.

Crash Recovery

Keep both the regular backup and the automatic recovery backup on!

As the HU backup file is only created from the last saved version when saving the current version, this functionality would not protect you from losing the work you completed since the last save in the event of abnormal termination of the program, e.g., caused by system crashes or power failures.

For such situations, an automatic periodic backup feature is provided that will store recovery information every 20 minutes (or a period of time you can set via **Tools / Preferences / General Preferences,** Tab: **Storage**. It is strongly recommended to keep this feature on.

Should ATLAS.ti or Windows crash or in any other way be terminated irregularly, the amount of work lost is only the work conducted since the last recovery backup (or regular save). When quitting ATLAS.ti or after saving the HU, the recovery backup file is removed automatically.

If you experience long delays at the scheduled auto-saving times when working with large HUs, increase the time intervals rather than turning this option off!

When you restart ATLAS.ti after a crash, it will ask you if you want to load a recovery backup of your HU if this backup is indeed newer than the one you last saved.

Any pending changes in open text or Network Editors are not saved by the recovery backup feature. Saving such changes from time to time will preserve these changes.

Backing Up The Entire Project

The Copy Bundle function lets you make a copy of your entire project, i.e. the HU and all associated files, packed as a single file. As such, it serves a dual purpose: Portability (to transfer a project to another location), and data security (a powerful backup & restore device).

Copy Bundle is a powerful tool. By inspecting the HU, it finds and collects all files that make up the project. It checks the accessibility of the data sources and provides feedback in problematic situations. From all the project files it compiles

a single compressed file. On a target computer, "installing" a bundle distributes the HU, the data source files, and all associated files to appropriate location(s).

Copy bundle files can be recognized by a special icon (an ATLAS.ti project in a box) and the file extension atlcb (see Figure 97).

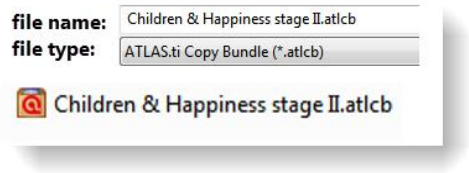


Figure 97: File extension and icon for ATLAS.ti 7 copy bundle files

The Copy Bundle Tool

There are two options to save a project as copy bundle file and to unpack a copy bundle file. You find both options under the **Project** menu: **Project /Save Copy Bundle** and **Project / Unpack Copy Bundle.**

A copy bundle file contains your HU plus all data sources that you have added to your ATLAS.ti project. It is the best and safest way to save your project. If you want to have a full backup of your project on an external drive or another computer, use the Copy Bundle tool--saving the HU file alone is not sufficient for secure storage. The HU file represents your entire project only in rare cases (i. e. only if you work exclusively with internal documents). In the vast majority of cases you will need a copy bundle file to backup or to transfer your project in its entirety.

The bundle tool is separated into two list panes and one report pane (see Figure 98 below).

Before creating a copy bundle file, you can specifically exclude documents that should not be in the bundle, e.g., unchanged (or even non-editable) large documents (e.g., video, audio files) that have already been carried to the target system via other means or with a previous Copy Bundle.

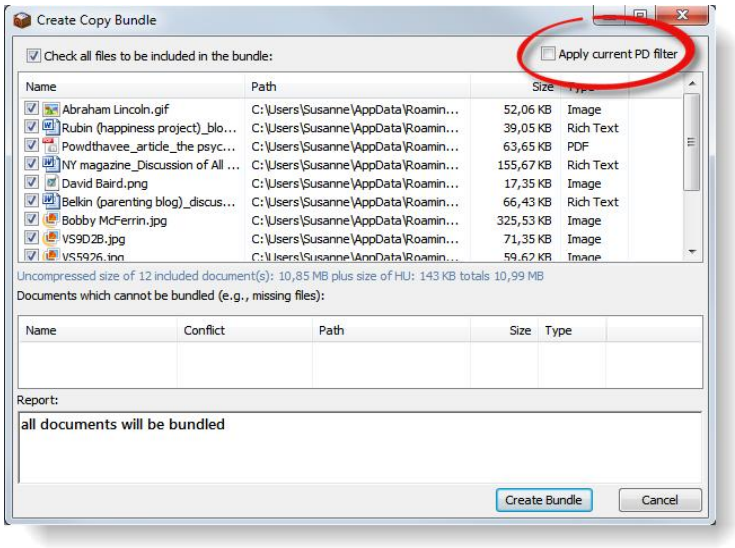


Figure 98: Copy Bundle Window: Pack & Go

The first list shows **all documents** that will be **included in the bundle**.

The second list pane diplays all **documents that cannot be bundled:** This list displays documents that are excluded by the system because of an irresolvable conflict. If all PDs in the HU can be displayed in the HU Editor, there should be no conflict when bundling the HU.

The following conflicts may occur:

- *Source Missing Conflict*. The document does not exist.
- *Source Unusable Conflict (only applies to linked documents).* The document cannot be loaded. Possible cause: A linked document was manually copied from another location without its associated LOG file using Windows copy method.
- *PD Source Conflict (only applies to linked documents).* Mismatch between PD and its source. This implies that a linked data source is not the one that is expected by the PD. Possible causes: mapping changed, data source was replaced by another file, LOG file was edited manually.
- *Ambiguous Reference Conflict (only applies to linked documents).* A linked data source is used by more than one PD but was assigned using different paths.

Report: In the report pane, the situation before creating the copy bundle file is summarized. This includes a list of all excluded documents and the reason for their exclusion.

How To Create A Copy Bundle

Save the HU.

Select **Project / Save Copy Bundle** from the main menu. The Copy Bundle window opens (see Figure 98). All documents that can be bundled are listed in the top right pane.

- Check the report pane. If everything is as it should be, click the **Create Bundle** button.

A standard file dialog window opens:

- Select a location where the bundle file should be stored.
- Enter a name for the bundle file or accept the suggested file name. The file extension atlcb (for ATLAS.ti copy bundle) is automatically appended.
- Click **Save**.

There is no need to create a copy bundle file if your project only contains internal (embedded) documents. This is for instance the case of you import survey data.

Creating Partial Bundles

There are two options to create a partial bundle file – you can select documents to be ex- or included in the Create Copy Bundle window, or make a select of documents in the P-Docs Manager.

In the Create Copy Bundle window:

- Option A: Exclude documents by clicking on the check boxes in front of each document.
- Option B: Set a PD family as *global* filter before opening the copy bundle window (see "Using Families as Filters") and check the "A*pply currend PD filter*" option at the top left of the Create Copy Bundle window.

Via the P-Docs Manager:

- Open the P-Docs Manager and select the documents that you want to include in the bundle.
- Right-click and select the option **Data Source Management / Bundle Selected Pds**.

Creating a partial bundle files does **not** mean that the documents that have not been included in the bundle are removed from the project. If you unpack a partial bundle file, you will still see the list of all primary documents in the primary document manager. However, you will only be able to open those files that were included in the bundle. The other entries remain gray.

How To Unpack A Copy Bundle

- Select **Project / Unpack Copy Bundle**.
- Select a copy bundle file and click **Open**. The following window opens:

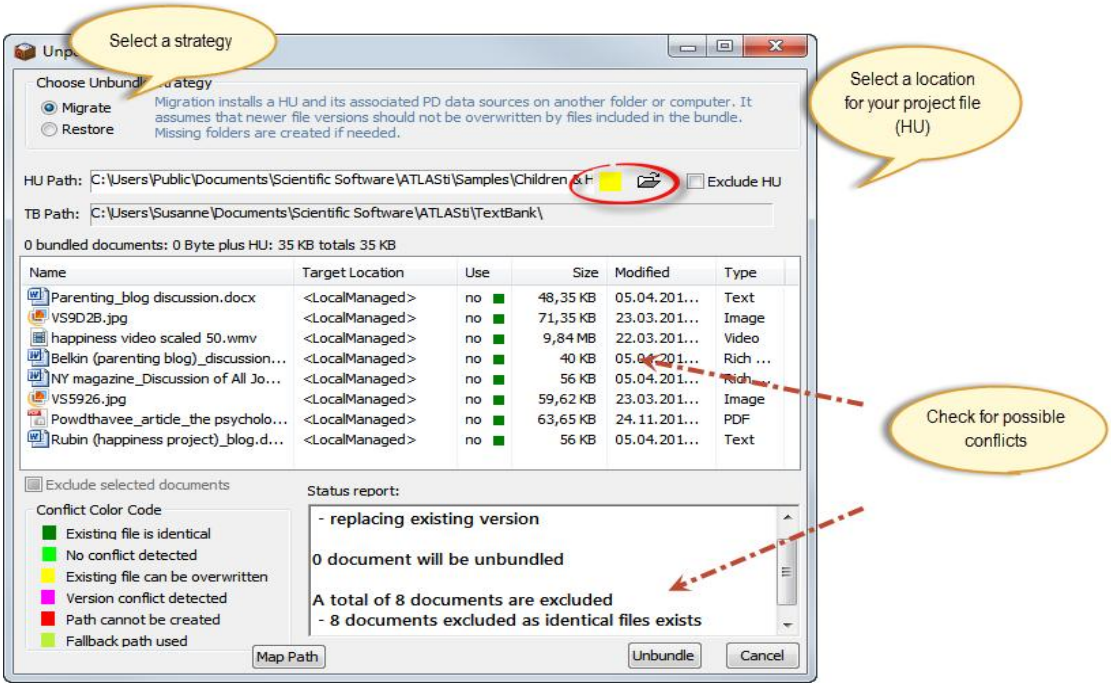

Select a strategy
Select a location for your project file (HU)
Check for possible conflicts
Migrate
Restore
Migration installs a HU and its associated PD data sources on another folder or computer. It assumes that newer file versions should not be overwritten by files included in the bundle. Missing folders are created if needed.
HU Path:
Exclude HU
TB Path:
0 bundled documents: 0 Byte plus HU: 35 KB totals 35 KB
Name
Target Location
Use
Size
Modified
Type
Exclude selected documents
Conflict Color Code
Existing file is identical
No conflict detected
Existing file can be overwritten
Version conflict detected
Path cannot be created
Fallback path used
Status report:
- replacing existing version
0 document will be unbundled
A total of 8 documents are excluded
- 8 documents excluded as identical files exists
Map Path
Unbundle
Cancel

Figure 99: Copy Bundle Install window

- Select an unbundling strategy. In most cases it will be "Migrate" (see "Unbundling Strategies" below).
- Select a location for the HU file by clicking on the file loader icon at the end of the field HU Path (see Figure 99 or Figure 100).
- Click on the button **Unbundle**.

When you select the option Unpack Copy Bundle, ATLAS.ti checks whether the documents in the bundle are already in your library. If this is the case, then you see the entry "0 documents will be unbundled". There is however nothing to worry about. ATLAS.ti will tell you that the documents are excluded because identical files already exist (see Figure 99).

If your HU only contains internal documents, you will also see that 0 documents will be unbundled. In this case, there is nothing to unpack as the documents are stored in the HU file. Thus, creating a copy bundle file was not really necessary.

UNPACKING PROJECTS WITH PROJECT LIBRARIES

If the HU packed in the copy bundle file uses a project library, which does not yet exist on the target computer, you will be asked to specify a location for the project library before the copy bundle file can be unpacked.

Unbundling Strategies

"Unbundling" is the term we have adopted for unpacking (or extracting) the compressed archive containing the HU and its associated files at the new location. The installation of a bundle on the same or a different computer can be done using two slightly different strategies: Migrate and Restore.

MIGRATE

Choose the "Migrate" strategy when moving projects between two work locations.

The "Migrate" strategy assumes that the bundle is to be installed on another computer or another disk in order to resume work at this different location. The target path for the HU can be freely chosen. When checking for conflicts, this strategy accepts that older versions of data source files are replaced by newer versions. If a document in the bundle is older than an existing one at the new location, it will not be unbundled. This prevents a document from replacing a newer version of it.

RESTORE

Use the "Restore" strategy when installing a bundle that was created as backup copy.

he "Restore" strategy is used to restore a bundle created as a backup of a project, i.e., an HU and all the data source files referenced by its PDs. This strategy restores the HU in exactly the same folder as at the original location. It does not reject an attempt to replace a current file with an older version – which is indeed the very nature of "restore."

Paths

Below the strategy selection section, the original path of the HU is displayed. A color marker next to the path indicates possible conflicts for this HU, if it were to be installed in the target environment.

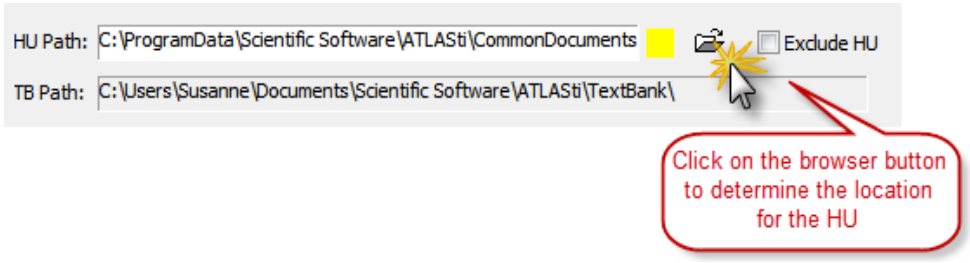


Figure 100: Selecting a location for the HU file

Click on the **Browse** button to select the location where the HU file should be stored on the target computer.

If you transfer a project to a different computer, most likely you will need to change the location. If you use the bundle file as backup and want to install the backup on your computer, there is probably no need to change the location.

A check box lets you exclude the HU itself from the installation.

Below the HU path, the TBPATH of the target computer is displayed. The TBPATH is the default location for storing ATLAS.ti project files and can be set under **Tools / Preferences / General Preferences**, tab: Paths. This pane is not visible in Restore mode.

The list of documents included in the bundle can be sorted with a click on the column header: The following information is provided:

- Name of the document
- Target location of the document.
- A field indicating if this document is used when unpacking the bundle. It also contains a small colored box indicating a possible conflict (see "Conflict Color Code" below).
- Size (the total of the file sizes of the document file and its optional auxiliary files).
- Last modification date
- Document type

Report Pane

The report pane in the lower right of the Install Bundle window displays a dynamic report of the documents about to be unbundled.

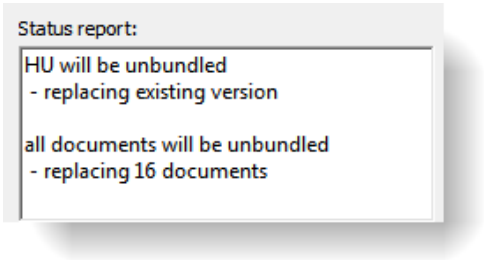
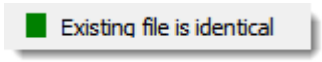
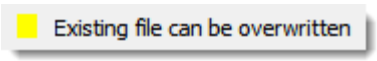
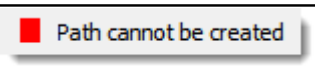


Figure 101: Status report in the copy bundle window

Conflict Color Code

Possible target conflicts are indicated by the colored square in the 'Use' column.

Color Code	Description
	**Dark Green** indiates that file already exists in the library. The Target Location is indicated as <LocalManaged>.
	Light Green is on for every document that can be installed without overwriting an existing version
	**Yellow**: A compatible file was detected; replacing this file does not harm the integrity of the HU. Other HUs accessing this document will be synchronized when needed.
	If you unpack a document with this **magenta** marker, other HUs with references to it may no longer be able to access it. Such documents will not be extracted in Migrate mode. You can, however, include these documents in Restore mode.
	**Red**: If a path does not exist on the target computer, it is created when installing the bundle file if possible.. However, not every path can be created. If you install a bundle on your personal computer and a Z drive is required, ATLAS.ti can not create this drive on your computer. If you see a red box, you either need to change the location for the HU file in the HU Path field (see above), or you need to map the path (see below for further information).
	A document is marked **light green**, if an otherwise irresolvable path could be resolved via fallback redirection, i.e. HUPATH or TBPATH. This only applies if linked documents are included in the bundle.

Path Mapping (Only Needed For Linked Documents)

You need to map a path, if the original path of a file on the source computer cannot be created on the target computer. This is likely to be the case when a project was set up with absolute path references on a network drive that cannot be accessed by the target computer.

Such a conflict can be resolved by mapping the non-existing path:

Click on the **Map Path** button included in the Install Bundle window. This opens the Path Map Editor.

- Enter a path to be mapped:

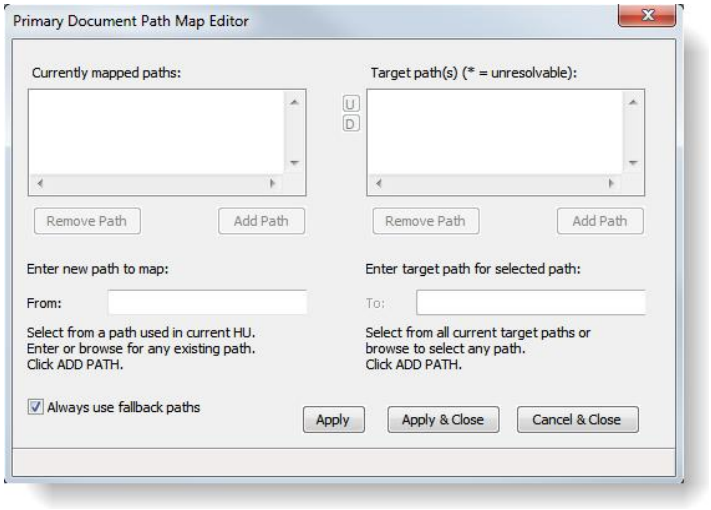


Figure 102: Document Path Map Editor

- Into the 'From:' entry field on the left side of the Path Map Editor, type in either the full path, select a path from the drop-down list, or click on the file browser symbol. Generally, useful options (non-accessible paths used in the current HU) are already offered in the drop-down list.
- Once a path is entered or selected, click on the *Add Path* button. The path will be added to the list of currently mapped paths.
- Now enter (or choose from the drop-down) a replacement path into the 'To:' field on the right side of the Path Map Editor in the same fashion:
- Click on the *Add Path* button.
- Repeat the above steps for every path to be mapped.
- Press Apply & Close to store and activate the new mapping(s).

REDIRECTION: FALLBACK

The option 'Always Use Fallback Paths' is activated by default in the mapping tool. If activated, the following happens: all irresolvable files are unbundled in the HU's folder, i.e., the folder where the HU (HPR7 file) is stored.

See the ATLAS.ti Version 6 manual for more detail on linked documents and special paths like the HU and TBPATH.

It is best to organize projects in ways that use absolute path references as rarely as possible. This reduces the need to use PD Mapping.

Project Transfer

If you want to transfer a project to a different computer, you need to create a copy bundle file on computer A and unpack it on computer B (or location B).

There is no need to create a copy bundle file if your project only contains internal (embedded) documents. This is for instance the case if you import survey data. To transfer a project with embedded documents, you can simply make a copy of the HU file and open it on computer B.

Creating A Copy Bundle On Computer A

- Save the HU.
- Select **Project / Save Copy Bundle** from the main menu. The Copy Bundle window opens (see Figure 98). All documents that can be bundled are listed in the top right pane.
- Check the report pane. If everything is as it should be, click the **Create Bundle** button.

A standard file dialog window opens:

- Select a location where the bundle file should be stored.
- Enter a name for the bundle file or accept the suggested file name. The file extension atlcb (for ATLAS.ti copy bundle) is automatically appended.
- Click **Save**.

Unpacking The Copy Bundle On Computer B

- Select **Project / Unpack Copy Bundle**.
- Select a copy bundle file and click **Open**. The Unpack Copy Bundle window opens (see Figure 99).
- Use 'Migrate' as unbundling strategy.
- Select a location for the HU file by clicking on the file loader icon at the end of the field HU Path (see Figure 100).
- Click on the button **Unbundle**.

For further details see “The Copy Bundle Tool“, “Unbundling Strategies“, “Conflict Color Code“ and “Path Mapping (Only needed For linked Documents)“.

Migrating ATLAS.ti 5 And 6 Projects

Compatibility Between ATLAS.ti Version 5 , 6 And 7 Projects

If you save your project in ATLAS.ti 7 the file is saved as .hpr7 file. Thus, version 5 or version 6 project files will not be overwritten.

However, a hpr7 file cannot be read by older version of ATLAS.ti. It is not possible to save a file as .hpr6 or .hpr5 file in Version 7. In other words, ATLAS.ti is upward but not downward compatible.

Migrating ATLAS.ti 5 And 6 Single-User Projects To ATLAS.ti 7

Important: Make sure that you create a copy bundle file using your older version of ATLAS.ti BEFORE installing ATLAS.ti 7.

If you already have installed version 7 and you do not have a copy bundle file of your project, there is a solution – but it may not work in all cases. Please do remember that the HU file does NOT contain your documents unless you work with internal documents. Thus, in addition to the HU file you need the document files. This is what the copy bundle file is all about – it contains both, your documents and the HU.

ATLAS.ti will be able to recognize your documents, if you store them into the same folder as the HU file. Thus, if you do not have a copy bundle file, create a folder that contains the document files in addition to the HU file. If documents have been edited, make sure that you include the log files as well. Then open the HU file in version 7.

If there are issues with loading documents after you have transferred a project, please contact the helpdesk.

Before transferring your version 5 or 6 project to ATLAS.ti 7, please read the following information first, as it will introduce concepts and terminology that you need to be aware of in order to understand the instructions below: "Data Management in ATLAS.ti" and "Adding Documents to a Project."

Double-click an ATLAS.ti 5 or 6 copy bundle file.

The Copy Bundle Install window opens. At the end of the field "*HU Path*" you find a folder icon (see left). Click on this icon and select a location for the new version 7 HU file. Click the button **Unbundle**. See also "How To Unpack A Copy Bundle."

Next, the following window opens:

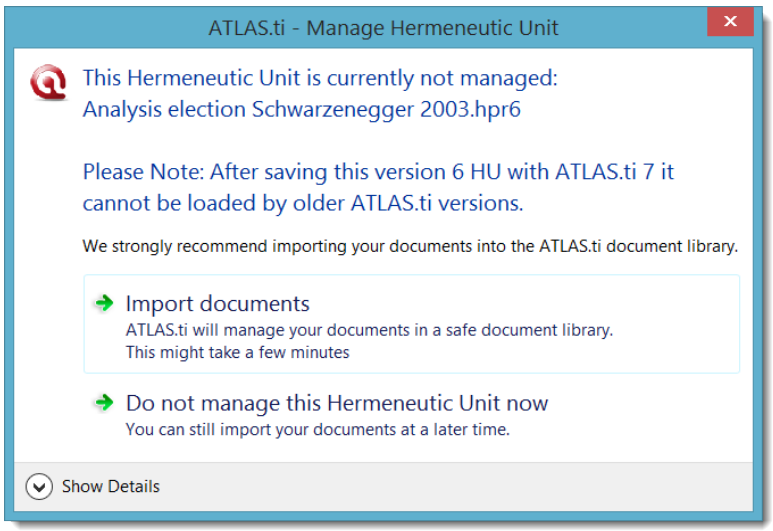

ATLAS.ti - Manage Hermeneutic Unit
This Hermeneutic Unit is currently not managed:
Analysis election Schwarzenegger 2003.hpr6
Please Note: After saving this version 6 HU with ATLAS.ti 7 it cannot be loaded by older ATLAS.ti versions.
We strongly recommend importing your documents into the ATLAS.ti document library.
Import documents
ATLAS.ti will manage your documents in a safe document library.
This might take a few minutes
Do not manage this Hermeneutic Unit now
You can still import your documents at a later time.
Show Details

Figure 103: Invitation to turn over data management to ATLAS.ti

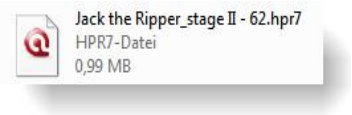
We recommend that you allow ATLAS.ti to import all documents to the document library. Thus select: **Import documents.**

The conversion process starts and may take up to a few minutes depending on the number of primary documents in your project. During the import process, a quality check takes place (see "File Quality Check"). Fix problems as necessary.

Once this process is finished, you will be informed about the number of documents that have been imported.

Click on the OK button and save the HU file: **Project / Save.**

Next, save your entire project in form of a copy bundle file: **Project / Save Copy Bundle**. Use this file as project backup or when you need to transfer your project to a different computer.



It is not necessary to change the file name if you want to keep your old version. ATLAS.ti simply adds a new file extension (hpr7). Your version 6 file remains untouched.

Migrating Version 5 And 6 Team Projects To ATLAS.ti 7

Team Members Work With Different Documents At Different Locations

If all team members work with **a different set of documents**, they can open their ATLAS.ti 6 HUs in Version 7 and select the **Import Documents** option (see above Figure 103). If you install version 7 on a different computer, then you need to create a copy bundle file first and open the copy bundle file in version 7 (see above "Migrating ATLAS.ti 5 and 6 Single-User Projects to ATLAS.ti 7".

Common Set Of Documents Stored At A Shared Locations

Workflow

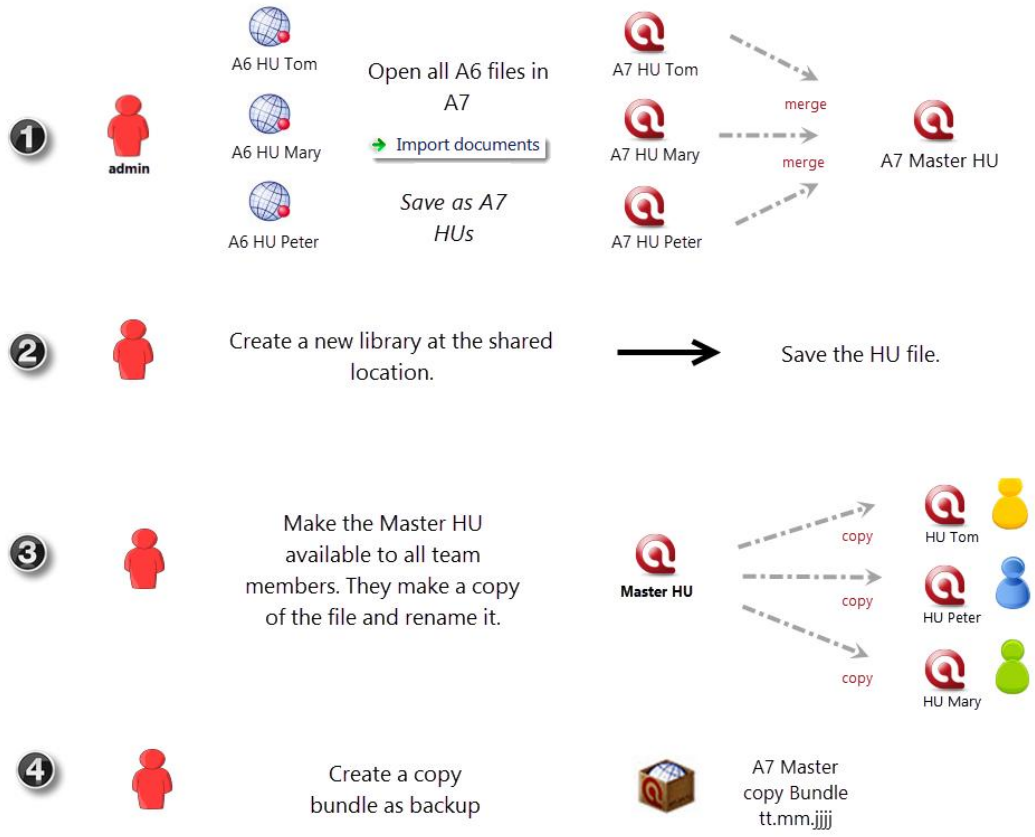


Figure 104: Work flow for team project migration if a common data set is stored at a shared location

Tasks Of The Project Administrator

Before you install version 7: Open the HU file of each team member and check whether all documents can be loaded. A quick way of finding out whether all documents can be accessed is by creating a copy bundle file. If there are problem, fix them first, for instance by moving all document source files and the HU file into one folder.

If all team HUs can access their documents, install version 7 and open the the HU files in ATLAS.ti 7. Allow ATLAS.ti to import the documents to the standard library (see Figure 103) and save the files as ATLAS.ti 7 HU.

Merge the ATLAS.ti 7 HUs (**Project / Merge with HU**) and create a new Master project file. Read the section "Merging Hermeneutic Units"for further information on merging.

Next, the documents for this project need to be moved to a project specific library at the shared location:

- Select **Project / Set Project Library**.
- Create a new library at the shared location (see "Setting Up Project Specific Libraries," and click OK.

The documents will be copied from the standard library to the new project library.

- Save the HU file and create a new Master copy bundle file as backup (**Project / Save Copy Bundle**).
- Provide a copy of the new Master HU file to all team members and make sure that they have access to the folder that contains the new project library.

Common Set Of Documents Stored At Different Locations

Work Flow

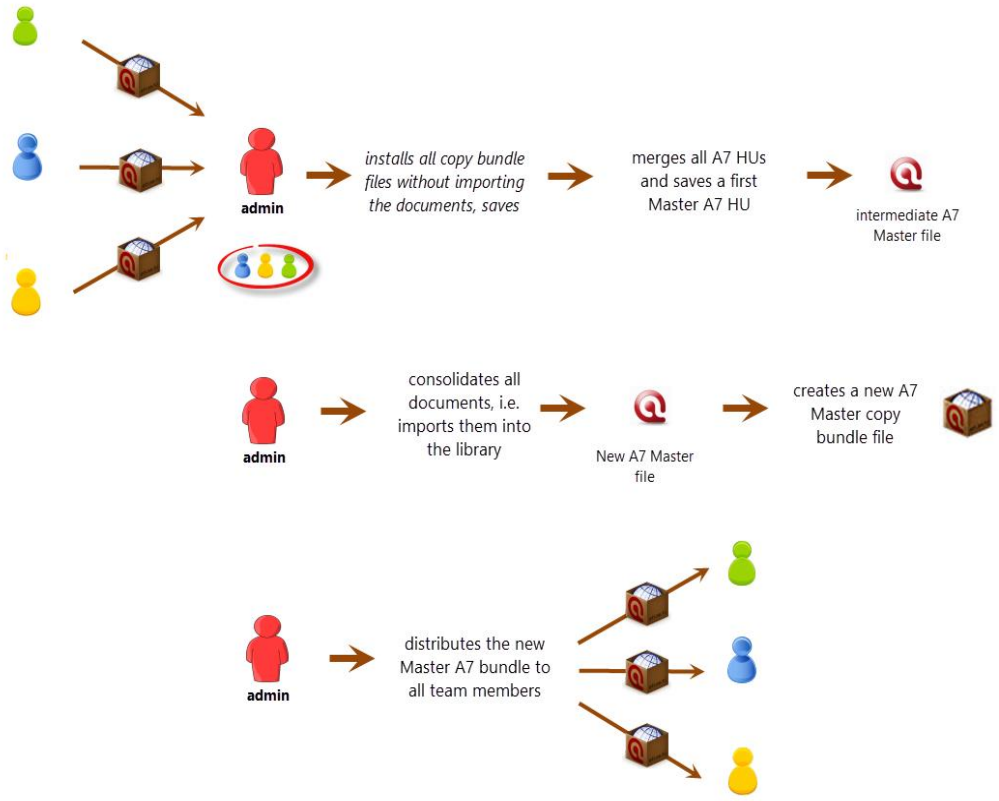

admin
installs all copy bundle files without importing the documents, saves
merges all A7 HUs and saves a first Master A7 HU
intermediate A7 Master file
admin
consolidates all documents, i.e. imports them into the library
New A7 Master file
creates a new A7 Master copy bundle file
admin
distributes the new Master A7 bundle to all team members

Figure 105: Team project migration (A5/6 to A7) if a different set of documents is used

Tasks Of The Team Members

Team members create a copy bundle file in ATLAS.ti 5 or 6 **before** upgrading to ATLAS.ti 7 and send the copy bundle file to the project administrator for merging.

Tasks Of The Project Administrator

The project administrator installs the copy bundle files, merges all HUs, creates a new Master HU and then imports all documents to the library:

Unpack the version 5/6 copy bundle files that you receive from all team members, e.g. by double-clicking each file.

When you are asked whether ATLAS.ti should manage the documents for you, select the second option **Do not manage this Hermeneutic Unit now** (see Figure 103).

Save each HU as version 7 project (**Project / Save**).

Merge all version 7 HUs and create a new Master file (**Project / Merge with HU**). See also section Merging Hermeneutic Units.

This new Master file can now be turned into a managed project. To to this, select:

Project / Consolidate Documents.... All documents will be imported into the standard library. Save the HU (**Project / Save**).

If desired, you can also move the documents to a project specific library. See "Setting Up Project Specific Libraries."

Next, create a copy bundle file (**Project / Save Copy Bundle)** and distribute the bundle file to all team members.

Tasks Of The Team Members

Install the copy bundle file sent to you the project administrator either by double-clicking the file or via the main menu option **Project / Unpack Copy Bundle.** If the project administrator has moved the documents to a project specific library, select a location of your choice on your computer for the library when prompted to do so.

Save the HU under a different name, e.g. by adding your name or initials to the file name. The HU file can be saved to any location.

Create a copy bundle file as backup (**Project / Save Copy Bundle**).

Trouble-Shooting: What To Do If No Copy Bundle Files Have Been Created?

If you or team members have not created a copy bundle in the old version, move the original source files into the same folder as the HU file. ATLAS.ti will recognize the documents if it cannot find them elsewhere.

There is however a BUT – if text documents have been edited either within ATLAS.ti or with a word processor, ATLAS.ti will not be able to recognize the files.

User Management

Collaboration or multi-authoring means that more than one author may work on an ATLAS.ti project at different times. ATLAS.ti supports this teamwork by systematically keeping track of each author's productions.

Every object created, including the Hermeneutic Unit itself, is automatically stamped with a date, time, and author. This identification of the author is what makes the log in process upon system start necessary (which by default proceeds automatically). Simultaneous collaboration is not supported, so only one person can work on a specific Hermeneutic Unit at a time. By default, only the author who created the Hermeneutic Unit (the *owner* or original author), is *author*ized to load, read, and edit the Hermeneutic Unit.

Letting others participate in creating a Hermeneutic Unit requires a few bureaucratic adjustments; one of which is the definition of *users*.

The simple concept of the ATLAS.ti user management allows all data that will be shared by different users to be placed in publicly accessible directories. But even with the Hermeneutic Units stored in a public directory, access can be restricted to the author. In other words, Hermeneutic Units can either be private or public. The default setting is *public*. If set to private, other users can be defined as co-authors for this Hermeneutic Unit (see "Access Rights for the HU").

ATLAS.ti's user database is independent of the account database in a local area network or your Windows log-in name.

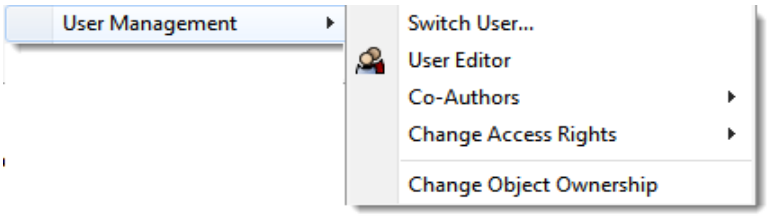


Figure 106: User Management sub menu

To keep it simple, it is best to leave the default setting to public access and to allow all users to create an account with administrative rights. These rights only apply when working with ATLAS.ti. Users defined in ATLAS.ti are not necessarily the same as Windows users. Furthermore, administrative rights assigned to an ATLAS.ti user have nothing to do with Windows user rights.

Adding A New User

If you do not intend to use ATLAS.ti in a work group environment, the only procedure you will need to be familiar with is how to modify the default account named "Super."

ATLAS.ti knows two classes of users: *administrators,* and all others. Administrators have more rights than "normal" users. The key rights of administrators are the ability to define new users, to install service packs or use the more advanced data source management features. Thus, in order to be able to create new user accounts, you need to be logged as a user with administrative rights. By default, you are logged in as "Super" user and this user has administrative rights.

To create a new user account, select **Tools / User Management / User Editor** from the main menu.

If this option is grayed out in the menu, you are logged in as standard user. Choose **Tools / User Management / Switch User...** and log in as Super user to be able to access the user administration window.

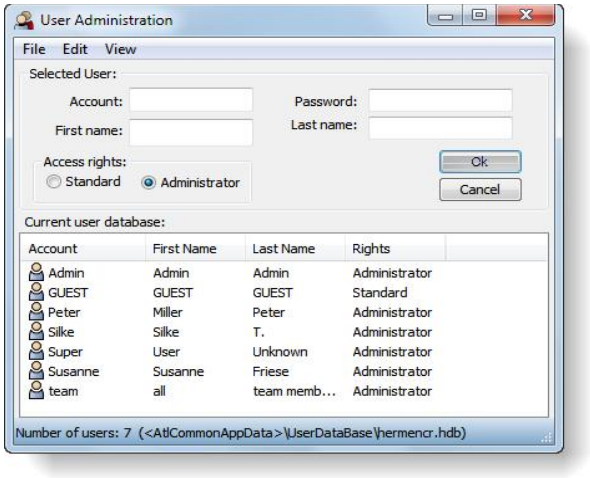


Figure 107: User Administration Editor

The user administration tool allows you to create, modify and remove users.

A user is characterized by five attributes, four of which you are prompted for in sequence: *Account name, password, last name, first name*.

Account name: When working with ATLAS.ti, the account name has to be entered at log-in time. Every object created, including the Hermeneutic Unit, is stamped with the account name.

Password: A password should be at least 4 characters (letters, digits, symbols) long, but should not exceed 10 letters (higher risk of typos). A password can be changed later by the administrator. However, when logging in, you are not required to enter a password if the default settings are kept (see Relaxed User Management below).

Last and first name: Both names really have no important function other then giving the user a correct welcome. However, both a last and a first name must be provided when defining a user.

To add a new user:

Select **Edit / New User**.

Enter an Account name, a password, the last and the first name into the sequence of "prompters".

After completion of the sign up procedure, the new entry appears in the list of users. The"Access rights" attribute is set to "Administrator" by default (see "Administrative and Standard Access Rights" below).

Change the access rights if needed.

Administrative And Standard Access Rights

Administrative rights allow you to add, delete and change users. In addition, administrative access rights are necessary if you want to edit primary documents.

Users with **standard rights** can only access HUs they have created themselves, or those where there have been registered as co-author. They are not allowed to edit primary documents.

Removing A User

To assure that there is at least one user with administrative privileges in the database, any attempts to remove all administrators is rejected. You cannot, for instance, remove the user who is logged in.

Select the user to be removed in the list, right click and select the option **Delete User** or or select the corresponding menu item from the **Edit** menu.

Changing User Attributes

You can change the account name, the password, the first and last names of a user and the access rights.

Right click on a user entry and select the appropriate option from the context menu, or highlight a user and select the corresponding menu item from the **Edit** menu.

None of the menu options except *New user* will be available if you select yourself in the list of users. If you need to change or even delete your own account, you need to switch to a different administrative account (e.g.

super), edit your normal account and switch back again (Tools / User Management / Switch User...

Saving The User Database

After new definitions and modifications, the user database must be explicitly saved or all changes will be discarded. If you close the user administrator window without saving, you will be prompted to save.

Be default the user data base is stored in a file called HERMENCR.HDB in the ATLAS.ti program folder. This name and folder should be used, unless you are about to create a copy of the database.

To save the user data base, select **File / Save** from the main menu in the User Administration window.

Switching Accounts

After creating a new account, the next step is log in under your name, i.e. to switch to your new account:

Select **Tools / User Management / Switch User....**

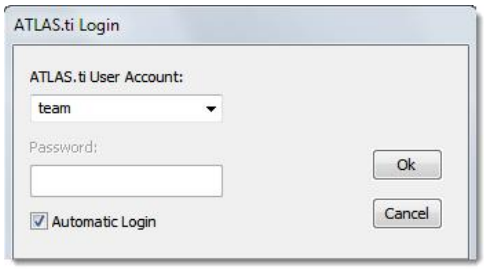


Figure 108: Login Window

Select a user account from the drop-down list.

Password: Note that the password field is grayed out and that you are not required to enter a password. If you do want to password protect your user account, you need to change the relaxed user management setting (see "Relaxed User Management;" to set a password for the HU, see "Access Rights for the HU").

Automatic Login: If you are the only person working at this particular computer (or on a public computer using a personal Windows user account), then the automatic login can remain activated. This means the current log in name is also used for the next sessions. If more than one user works on the same computer, then the automatic log in should be deactivated. If

deactivated, the login window pops up upon start-up and the user is prompted to log in.

Access Rights For The HU

To change access rights for a HU, choose the option **Tools / User management / Change Access Rights** from the main menu. Four options are offered:

Public - read only: this choice lets all other users load and view the Hermeneutic Unit, it may even be edited, e. g. for training purposes, but it cannot be saved to disk.

Public - read & write (default): permits other users to have the same rights as the author, but not the ability to change the access rights.

Private: By choosing this option you can revoke previously granted rights again.

"Set Password" lets you protect the Hermeneutic Unit against loading unless a correct password is provided. Make sure you remember the password or you will not be able to load your own Hermeneutic Unit again!

As with all other access-related options you need to save the Hermeneutic Unit before any changes are in effect.

Co-Authors

To restrict access to a group of co-authors (i. e., more than one author), the sub-menu **Tools / User Management / Co-Authors** offers three options for authors: add, remove, and view the list of co-authors currently defined for this Hermeneutic Unit. This feature only makes sense if public access to the HU has not been granted.

To Register Co-authors

Co-authors have the same rights as the original author, except for the right to define or remove co-authors, unless having administrative rights themselves.

Select **Tools / User Management / Co-Authors / Register Co-Authors**. You are presented the list of all users known to the system (which have previously been defined by the administrator or the original author).

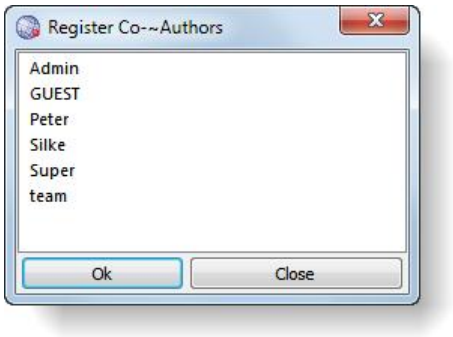


Figure 109: Registering co-authors

Select one one more authors from the list and click OK. A message pops up informing you who is registered as co-authors for the currently loaded. HU.

To Remove Co-authors

Select **Tools / User Management / Co-Authors / Remove Co-Authors**. You are presented the list of current co-authors. Choose the ones to be removed from the Hermeneutic Unit.

To Display Co-authors

Select **Tools / User Management / Co-Authors / Display Co-Authors**. You see a list of the co-authors currently assigned to the Hermeneutic Unit.

To Filter By Co-authors

To display only those parts of a Hermeneutic Unit created by a subset of the co-authors involved, choose the filter-option **Co-authors** in any of the Object Managers.

The User Database

All ATLAS.ti users are cataloged in a special "database"-file *HERMENCR.HDB*, located in the ATLAS.ti system directory. This file is loaded on program start-up.

Never modify the user database file *HERMENCR.HDB* from outside ATLAS.ti, as this will corrupt it and lock you out of the system!

After the initial installation of ATLAS.ti, there is already one "dummy" user with administrator privileges set up: Account = SUPER, password = USER. Because *automatic login* is the default mode, it is quite likely that you usually work under this default account.

Creating And Working With Different User Databases

To create a new data base, save the standard data base HERMENCR.HDB under a new name, e. g. hermencr_2.hdb: **Files / Save as.**

- Make the desired changes and save the new data base.
- When you start ATLAS.ti the next time, the default user data base "hermencr.hdb" is loaded. To load the newly created user data base, select **File / Load Database.**

Relaxed User Management

The default setting is "relaxed user management". This feature removes the password requirement for user accounts. The default setting can be changed by editing the central configuration file for ALL users, *ATLAS.INI*. This file can be found in the common application data folder. You need Windows administrator rights to be able to modify this file. To access the file for modification:

Changes to ATLAS.INI affect all computers in a networked environment.

- Select **Tools / Explorer / Common Application Data.**
- Make a backup copy of *ATLAS.INI* file.
- Open it with a plain text editor (such as Windows Notepad).
- Look for the section: [lan] and set the variable "relaxedUserManagement" to either "enabled" or "disabled."

If relaxed user management it disabled, users need to enter their account password when logging in.

Settings in *ATLAS.ini* affect **all** clients in a networked environment. For any changes in *ATLAS.ini* to take affect, ATLAS.ti has to be restarted.

Merging Hermeneutic Units

The Merge Tool reunites HU's that were originally divided for analytical or economical reasons. Its main purpose is the support of teams. It links together the contributions of different members of a research team. A common scenario is the analysis of different sets of documents by different team members, sharing a common code base. Of course, the single researcher can also benefit from this function using the merge facility to help organize large projects.

Examples Of Application

Text Corpus Reuse

With only PDs to add and everything else IGNORED you can transfer all documents from any HU into a freshly created, or already existing HU. The PD comments and any existing quotations are also transferred.

Theory Import

With only codes, networks, and code families selected, a "theory" can also be migrated to another HU. This is similar to the current "Import Networks" feature, but also migrates Network Views and code families.

Team Work

Add codes, unify PDs: This would be the strategy when the same set of PDs is utilized by different team members using different codes.

Unify codes, add PDs: Different PDs were distributed to team members using the same set of codes, or mainly the same set of codes. Codes that are different from the common set are not lost but added.

Main Concepts Of Merging

Target And Source HUs

The main concepts in Merge are the *Target HU* and the *Source HU*. The Target HU is the HU into which another Source HU is merged. The target HU has to be loaded into the HU Editor before invoking the Merge HUs option. It is advisable to save the target HU under a different name before starting the merge procedure.

To prevent accidental overwrite of an existing HU, you may create a new HU first or save the currently open HU under a different name.

Merge Strategies

Three "strategies" can be chosen for the processing of every object category. These are "Add," "Unify," and "Ignore." The object categories that can be processed within the HU are PDs, Quotations, Codes, Memos, PD Families, Code Families, Memo Families, and Network Views.

Add: The objects of this category are added to the target HU. If an identical object is found in the target, the added object will get a new name consisting of the original name plus the suffix "_number". A new number is added until the name of the object is unique. For instance, if a code "Alchemy" already exists in the target, the source version of "Alchemy" is renamed to "Alchemy_1".

Unify: Searches for corresponding objects in the target HU. If such an object is found, all attributes of the source object are "inherited" by the target object. A corresponding quotation is one that resides in the corresponding primary document AND that has the same start and end position.

In this procedure, attention is paid to deviations between two PDs to be merged that may result in a corrupt PD with misaligned quotations.

Two PDs are considered equal for unification when three conditions hold.

While most other objects are unified via their name, PDs are treated differently. A PD from the source HU is unified with a PD from the target HU if the following conditions hold:

- Both PDs have the same unique identifier (see “
- Both PDs refer to the same data source.
- If none of the PDs can access its data source, the test uses ID and revision equality only. Thus, HU files can also be merged if the data source files are not available.
- If two PDs found to be the same but at a different revision status, the PD with the older revision status is synchronized.

Ignore: Instances from ignored object categories are not transferred during the merge process. For a finer grained exclusion you can use the "ignore" families option (see next).

Use specially named families for fine-grained control over items to be ignored.

"Ignorant" families: To exclude specific objects from the transfer (such as private memos, test codes, etc.), you would create a special family with the name "!MERGEIGNORE" into which you can move items to be excluded. This can be done for all three family types.

How To Merge Hermeneutic Units: General Procedure

When merging two HUs, the Merge Wizard guides you through the procedure. In the first step, the source HU is selected. Next, a merge strategy is chosen and possibly fine-tuned.

Select A Target And Source HU

Load the target HU. It is advisable to save it under a different name, so that you don't corrupt the original file in case something goes wrong.

From the HU Editor's main menu, select **Project / Merge with HU**. Alternatively you can drag an HU onto the HU Editor's caption holding down the CTRL key. The Merge Wizard opens, guiding you through the merge procedure (see figure 61 below).

The first page of the Merge Wizard displays the current target HU (i. e., the one that was loaded first), requesting you to enter the source HU's file name:

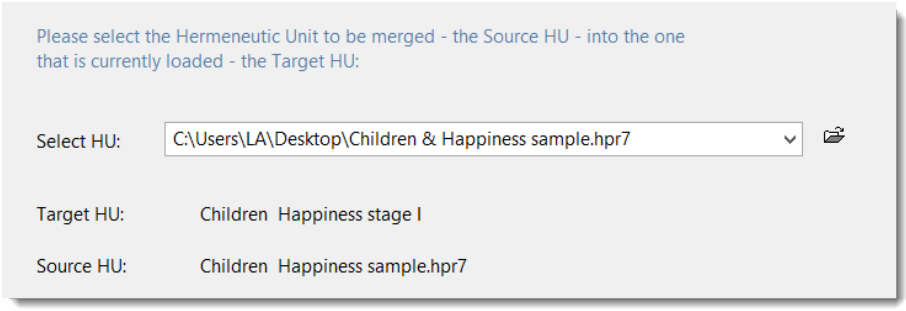

Please select the Hermeneutic Unit to be merged - the Source HU - into the one that is currently loaded - the Target HU:
Select HU:
C:\Users\LA\Desktop\Children & Happiness sample.hpr7
Target HU:
Children Happiness stage I
Source HU:
Children Happiness sample.hpr7

Figure 110: The Merge Wizard - select a Source HU after loading the Target HU

Click on the browse button and select a source HU from the file dialog.

Click the **Next** button. The source HU is loaded and you can proceed with the next step.

If the merge procedure was initiated by drag & drop, the source HU is already entered into the source entry field. You can immediately proceed by clicking on the **Next** button. Next, you need to choose a merge strategy.

Choose A Merge Strategy

The second step is the selection of *how* the source HU is to be merged into the target HU. Four broad, predefined strategies are available that can be customized in a second step. Object classes can be selectively added, unified, or ignored (see "Main Concepts Of Merging" above).

The Merge Wizard offers a variety of options to set the merge strategy for every object type.

Select one of the four stock strategies. A short description of the strategy is displayed at the bottom left of the dialog box.

Fine-tune the strategy so it best suits your needs. For all major object types, you can divert from the predefined stock strategy and manually define how the various object types are to be handled in the merge process.

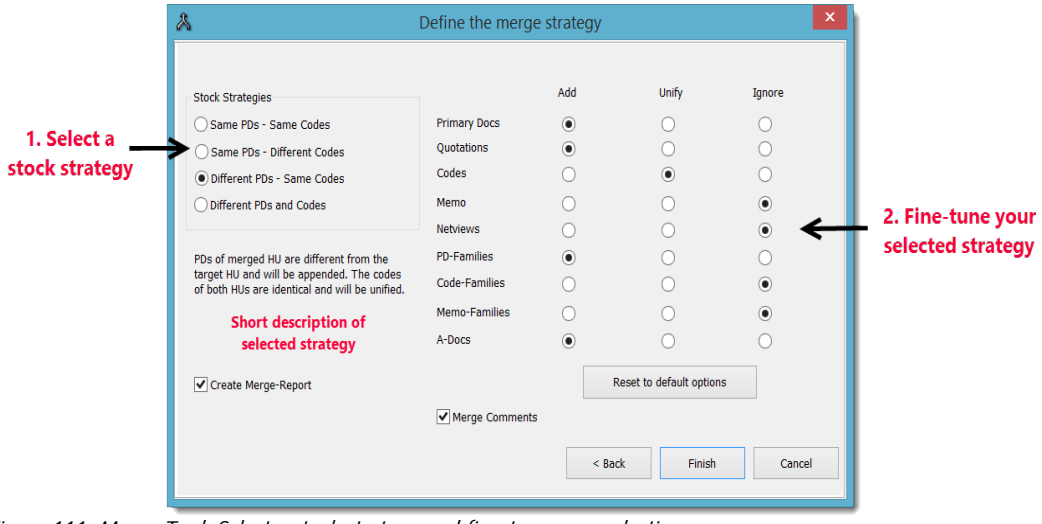


Figure 111: Merge Tool: Select a stock strategy and fine-tune your selection

The Merge Wizard offers a variety of options to set the merge strategy for every object type.

Same PDs and Codes: Choose this strategy when PDs and codes are (mostly) the same in the target and source HU. All of the same PDs and codes are then unified. Different PDs and codes will be added.

Same PDs – Different Codes: Choose this strategy when target and source HU contain the same PDs, but different set of codes. If identical codes are found during the merge procedure, the duplicate codes from the source HU are automatically renamed by adding a numeric suffix.

Original code name: Alchemy

Duplicate code: Alchemy_1

Different PDs - Same Codes: Choose this strategy when target and source HU contain different PDs that have been coded with the same code set. This is a common situation when working in teams and different team members have coded different PDs using a common set of codes. If a few additional codes have been added to the common set, these will be added.

Different PDs and Codes: Choose this strategy when both PDs and codes are different. The PDs and codes from the source HU will be added to the ones in the target HU. If identical codes are found during the merge procedure, the duplicate codes from the source HU are automatically renamed by adding a numeric suffix as shown above.

Check the option "Create Merge Report" to generate an overview of what has been done. The report lists all added and unified objects and their old and new names. Statistics about the source and target HUs and the resulting merged HU are created. The report will be opened in a rich text editor after the merge process is completed (see "Merge Report" for details).

Click **Finish** to start the merge process. This may take a while depending on the size of both the target and source HUs and the strategy chosen. The Unify strategy is generally more consumptive in processing time than adding objects.

If you repeatedly merge the same HUs, deactivate the option "Merge Comments" as this may unnecessarily blow up the comment for any of the unified objects and leads to multiplications of entries.

Special Considerations For HUs That Use A Project Library

As project libraries are an option for projects that contain sensitive data, the software prohibits that HUs that use a project library are merged into HUs that use My Library or linked documents. It is however possible to merge an HU that uses My Library into an HU that uses a project library.

If one of the HUs to be merged uses a project library, use this HU as target.

Combinations that are not allowed:
- Target HU uses My Library and source HU uses a project library
- Target HU uses linked documents and source HU uses a project library

Combinations that are allowed:
- Target HU uses a project library and source HU uses a My Library
- Target HU uses a project library and source HU uses linked documents
- Target HU uses a project library and source HU uses a project library

If the source HU uses My Library or another project library, all documents will be copied to the project library of the target HU during the process of merging. Linked documents remain linked.

If you are unsure which library is used by the HU, open the P-Docs Manager and look a the column 'Location'.

After The Merge

After a successful merge operation, some "cleaning up" might become necessary. For example, codes with different names but similar meaning (i. e., synonyms) are now treated as distinct codes. They may need to be merged (see "Merging Codes"). It could also be the case that you end up with a number of quotations that overlap but are coded by the same code(s). Such instances can be found with the help of the Coding Analyzer (see "Redundant Codings Analyzer").

The Merge Report

If you have checked the option "Create Merge Report" in the Merge Wizard (default), a report generator keeps track of every object affected during the merge process.

The report displays:
- the name and location of the source and target HUs

- object statistics and merge strategies for source and target HUs
- added objects sorted by object type (prefixed with a "+")
- unified objects sorted by object type (prefixed with a "=")
- statistics for the resulting HU

Below, excerpts from a merge report are shown resulting from merging "The Sample" HU with itself using the strategy "Different PDs Same Codes". During this merge, PDs, quotations and PD Families are added; and all codes are unified.

The first part of the report provides an overview of the selected merge strategies.

Object Type	Source-HU	Target-HU	Strategy
Primary Docs	22	22	Add
Quotations	458	456	Add
Codes	79	79	Unify
Codings	523	523	-
Memos	21	21	Ignore
Network Views	3	3	Ignore
Primary Doc Families	14	14	Add
Code Families	13	13	Ignore
Memo Families	0	0	Ignore
Code-Links	23	22	Target
Hyper-Links	31	29	Target

Figure 112: First part of the merge report: An overview of the selected merge strategies

Added Objects

When objects are added that have identical names in both the source and target HUs, the added object is renamed using an incremental numbering scheme. Note that the PDs are not renamed. This is because the prefix "P x" is a part of the name, making equally named PDs distinct.

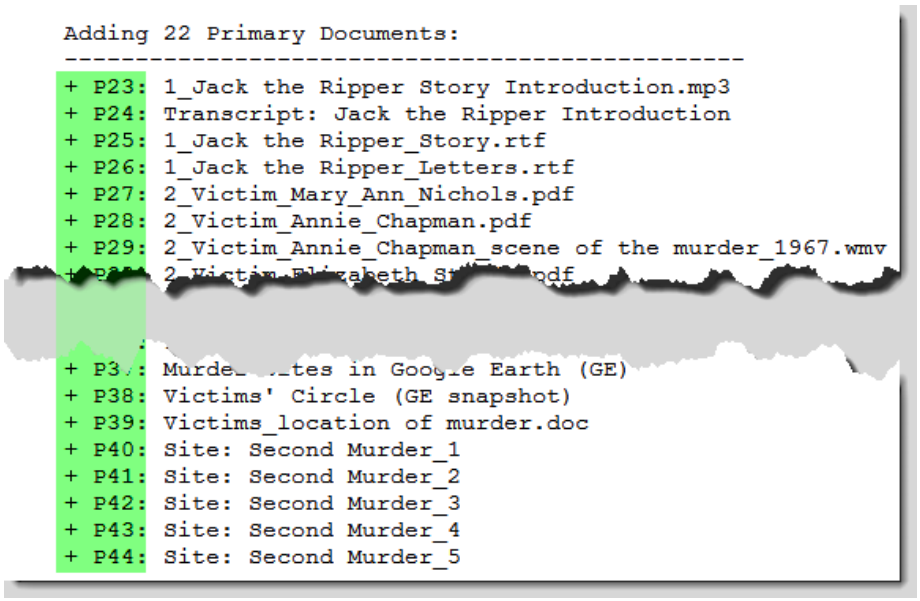

Adding 22 Primary Documents:
+ P23: 1_Jack the Ripper Story Introduction.mp3
+ P24: Transcript: Jack the Ripper Introduction
+ P25: 1_Jack the Ripper_Story.rtf
+ P26: 1_Jack the Ripper_Letters.rtf
+ P27: 2_Victim_Mary_Ann_Nichols.pdf
+ P28: 2_Victim_Annie_Chapman.pdf
+ P29: 2_Victim_Annie_Chapman_scene of the murder_1967.wmv
+ P38: Victims' Circle (GE snapshot)
+ P39: Victims_location of murder.doc
+ P40: Site: Second Murder_1
+ P41: Site: Second Murder_2
+ P42: Site: Second Murder_3
+ P43: Site: Second Murder_4
+ P44: Site: Second Murder_5

Figure 113: Added primary documents using a unique identifier in form of the PD number

The imported PD families are renamed using the numeric suffix "_1".

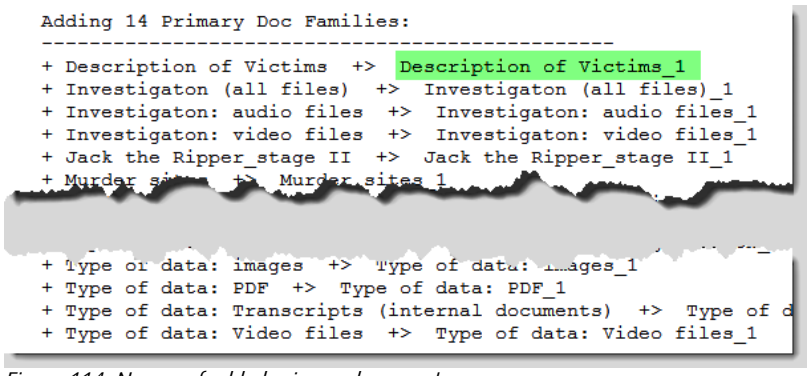

Adding 14 Primary Doc Families:
+ Description of Victims +> Description of Victims_1
+ Investigaton (all files) +> Investigaton (all files)_1
+ Investigaton: audio files +> Investigaton: audio files_1
+ Investigaton: video files +> Investigaton: video files_1
+ Jack the Ripper_stage II +> Jack the Ripper_stage II_1
+ Type of data: PDF +> Type of data: PDF_1
+ Type of data: Transcripts (internal documents) +> Type of d
+ Type of data: Video files +> Type of data: Video files_1

Figure 114: Names of added primary documents

Unified Objects

Unified codes are displayed along with their new quotation references within the resulting HU:

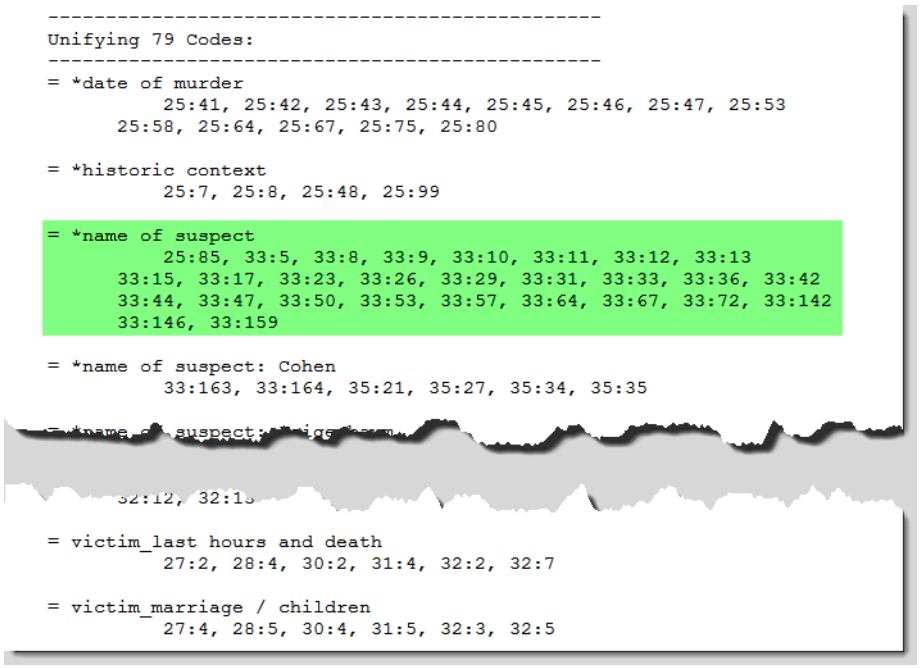


Figure 115: Report on unified codes

Statistical Summary

The statistical summary at the end of the report provides an overview of all object types after the merge.

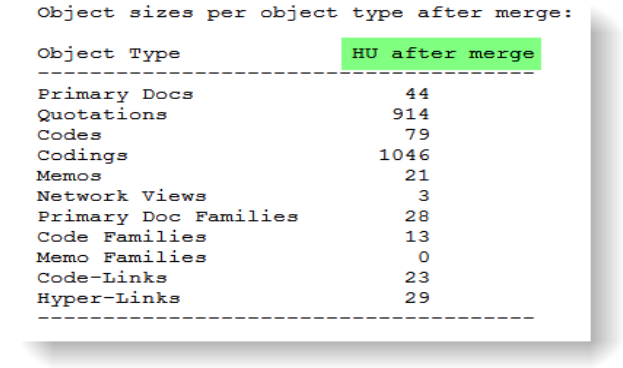


Figure 116: Statistical summary at the end of the merge report

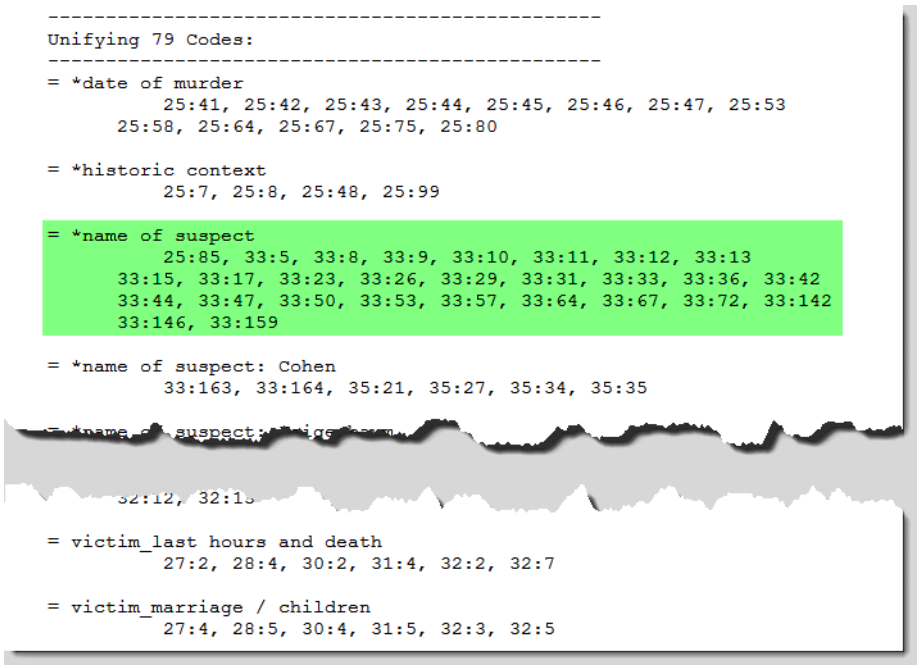


Figure 117: Report on unified codes

Trouble-shooting After Merging

Below you can find solutions for some common issues that occur during or after merging.

PDs Are Added Rather Than Merged

Explanation: If you add documents to a project, the data source files are copied into the selected library. In your ATLAS.ti HU you see "primary documents" - these can be thought of as containers for your data source files. In addition to the reference to the data source, these containers have a name, an author, a creation and modification date, etc., basically all the information you see in the PDocs Manager. Plus, each primary document (PD) has a unique fingerprint (which you do not see). It is generated when adding the data source to an HU.

The advantage of this is that ATLAS.ti can precisely identify each primary document and for example the order of primary documents in your HUs do no longer play a role when merging. The often overlooked consequence, however, is that if you add the same data sources to a different HU (on the same or a different computer), the fingerprints will be different.

This means when merging these HUs, ATLAS.ti does not recognize the primary documents as being the same - due to their different fingerprints - even though their content is the same.

Solution: In case after merging you ended up with two or more rather than one primary document and you are sure their content is the same, do the following:

Select the two primary documents in the Primary Document Manager (by holding down the Ctrl-key).

From the **Miscellaneous** menu (document manager menu or context menu) select the option **Merge selected PDs**.

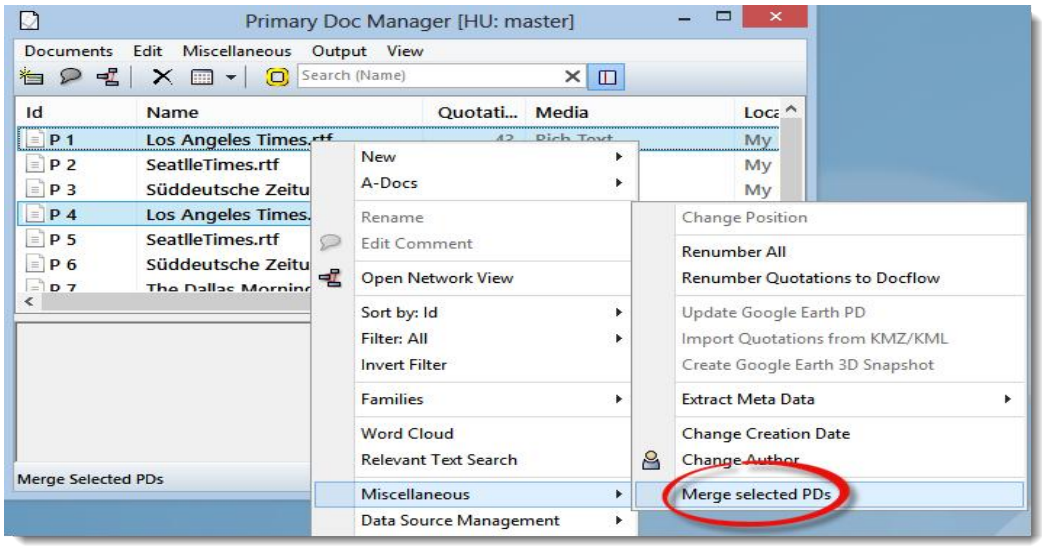


Figure 118: Merge duplicates

Another window opens. Select whether you want to add or unify quotations and whether to merge comments. In case you accidentally ended up with two primary documents for one data source, you need to select "Unify" (Quotations) option.

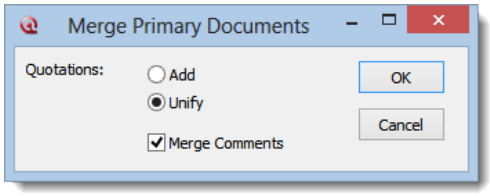


Figure 119: Further merge options

The "Add" (Quotations) option is useful if you want to compare the coding of two coders for inter-coder reliability purposes (see "Calculating Inter-Coder Reliability using CAT."

Make your selection and click **OK**.

In order to avoid this problem in the future, please proceed as follows when setting up a team project where all team members use the same data sources:

One person in your team needs to setup the project - adding all needed documents, creating a copy bundle file and distributing the copy bundle file to all team members. See also "Setting up Team Projects."

Conflict Resolution For Links

For certain entities, a default "conflict resolution strategy" is used. If the inclusion of objects could result in the modification of a "link" between objects in the target HU, the target HU link is preferred. Example: If there is a link "is-associated-with" between two codes "Alchemy" and "Gold" in the target HU, and a conflicting link "is-contrary-to" exists between the corresponding source HU codes, then the link in the target HU "wins". However, if *no* link exists between two objects in the target HU, the link existing in the source HU is transferred. This strategy is also pursued for hyperlinks and other connections between objects.

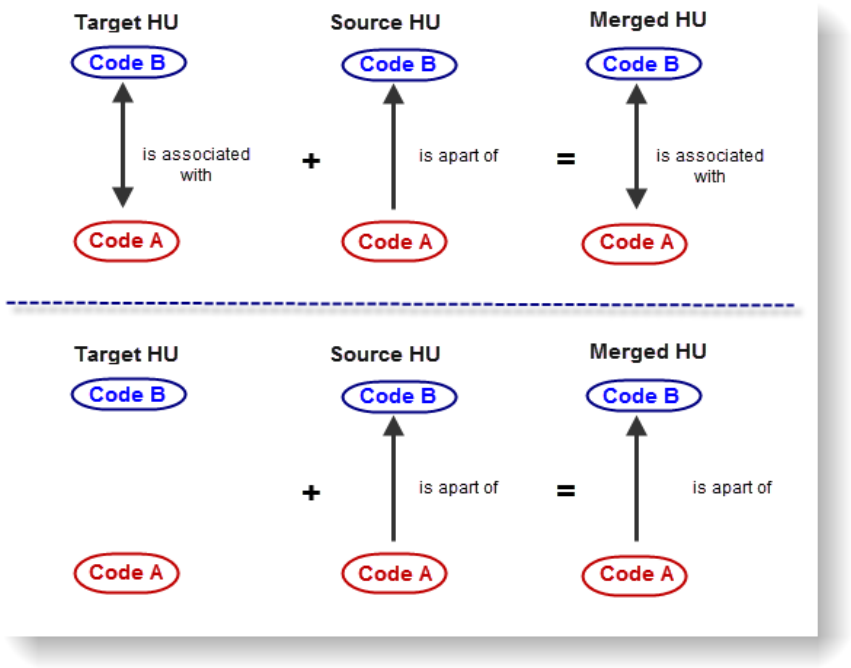


Figure 120: Merging HUs: Link resolution - The link between Code A and Code B in the target HU survives the merge process.

Migration Of General Features

Co-authors are also merged.

The comment of the source HU is appended to the target, and the list of co-authors in the target is completed with those in the source HU.

Special Considerations For Quotations

Quotations play a special role because they cannot be handled independent of the PDs. When PDs are ignored, so are quotations. When PDs are added, quotations are added. The interesting case is when PDs are unified: you can then select either UNIFY or ADD.

Add quotations if you want to calculate inter-coder-reliabiltiy.

ADDing quotations will create *duplicate* quotations in the target PD, even if a matching quotation already exists. This is a useful option if you want to calculate inter-coder reliability (see CAT, a free online tool that allows you to calculate intercoder-reliabiltiy. You can access the tool via **Help / More Resources / The Coding Analysis Toolkit**).

Merging Scaled Codes

When variable codes with a special naming convention (see "Scaled vs. Dichotomous Codes") are added during the merge process, their values are invalidated in case of name clash. The reason for this is that imported codes with an identical name are automatically renamed using a numeric suffix.

Note that before applying the SPSS job generation feature on the resulting HU, such codes would need to be manually renamed.

A Few Additional Considerations

You can *unify* codes, but *add* Network Views. This results in a new network containing the same nodes as those already contained in the target HU's network.

Adding nodes and unifying networks could result in an existing Network View being crowded with both the nodes from the target and the source HUs.

Test merge effects by experimenting with sample HUs.

Unifying Super Codes combines their queries using the OR operator.

To get acquainted to the effects of either adding or unifying entities, you should experiment with the various strategies using sample HUs. Observe what happens. Before modifying serious projects, you should gain some understanding of how the merging process works.

The Data Level - Basic Functions

As you may already know from the chapter on the main concepts and features (see section "Main Concepts and Features"), there are two principle levels of interaction, the data level and the conceptual level.

The **data level** includes activities like segmenting and organizing data files, coding data segments, simple retrieval and writing memos, while the **conceptual level** focuses on asking more complex questions about your data, model-building activities, such as linking codes to form semantic networks.

In this chapter, you will learn about the main procedures needed to begin your data analysis. These include how to mark, code, and comment text, graphic, audio and video segments; and how to write memos. In addition you learn about the ATLAS.ti family function. This is a function for grouping objects, i. e. documents, codes and memo, which can then be used as filters for various purposes.

Creating Quotations

The most common operations on primary documents -- especially when starting a project -- are selecting data sections, assigning codes and/or memos to them.

Marking a segment does not by itself create a quotation, though this is often the very next step after making a selection.

Creating And Working With Textual And PDF Quotations

Video tutorial: http://www.youtube.com/watch?v=bU6nu-aWhYM

In the majority of cases, creating quotations is part of a higher-level procedure like coding or writing memos (described later).

For immediate feedback, activate the margin area

There are a number of ways to create a quotation. These options are available via the toolbar and menus, and via drag & drop. For immediate feedback when creating quotations, switch on the margin area (if not yet activated).

Before a quotation can be created, an appropriate selection must exist.

Selecting Text Segments

In addition to the usual selection techniques known from text editors and word processors, ATLAS.ti offers an extended "semi-automatic" double-click selection technique for textual primary documents.

Here is how it works:

Double-click selection sequence:

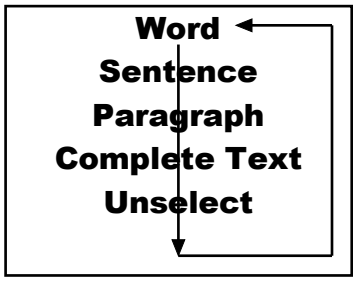


Figure 121: Text segmenting options

- Double-click to **select the word** (assuming it is not yet selected).
- Double-click on the selection to expand it to **the sentence** embedding the current selection.
- Double-click on the selection to expand it to **the full paragraph** surrounding the selection.
- Double-click again to select the **complete text**.
- Double-click once more to deselect **the selected area**.

For the semi-automatic selection of sentences and paragraphs, the currently used Paragraph Model plays a crucial role. For instance, if you have assigned a "Legacy" document with hard returns for every line, selecting a paragraph will select a line unless you have switched interpretation to an "Old Paragraph Model" (see ATLAS.ti Version 5 manual).

Selecting PDF Segments

Selecting PDF segments works essentially in the same way as selecting segments in text of graphic files. If you select text in a PDF file, you need to pay attention that the cursor is positioned left from the first letter of the text. If you begin your selection further to the left or above the text, then ATLAS.ti

handles the selection as a graphic segment (see "Creating and Working with Graphical Quotations."

Creating A Free Textual Or PDF Quotation

Mark a section in the primary document.

Click the **Create Free Quotation** button (see left) in the HU Editor's primary document toolbar. Alternatively you can right click on the selection and choose **Create Free Quotation** from the context menu. The option is also available from the main Quotations menu.

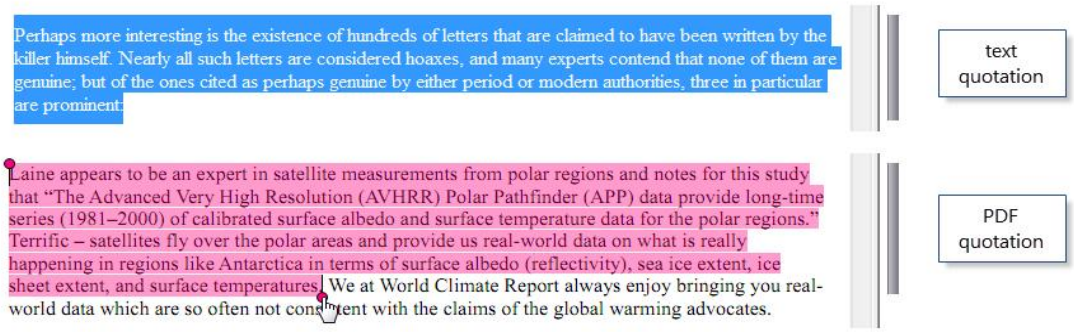

Perhaps more interesting is the existence of hundreds of letters that are claimed to have been written by the killer himself. Nearly all such letters are considered hoaxes, and many experts contend that none of them are genuine; but of the ones cited as perhaps genuine by either period or modern authorities, three in particular are prominent:
text quotation
Laine appears to be an expert in satellite measurements from polar regions and notes for this study that "The Advanced Very High Resolution (AVHRR) Polar Pathfinder (APP) data provide long-time series (1981–2000) of calibrated surface albedo and surface temperature data for the polar regions." Terrific – satellites fly over the polar areas and provide us real-world data on what is really happening in regions like Antarctica in terms of surface albedo (reflectivity), sea ice extent, ice sheet extent, and surface temperatures. We at World Climate Report always enjoy bringing you real-world data which are so often not consistent with the claims of the global warming advocates.
PDF quotation

Figure 122: Creating free text quotations

If you accidentally select a section for which a quotation already exists, the context menu will not include the Create Free Quotation command.

A new entry is shown in the quotation drop down list or if opened the Quotation Manager. The default name consists of the first 30 characters of the selected text.

Text quotation are highlighted according to the highlight color you have set in Windows. The highlight color for PDF documents can be set within ATLAS.ti in the PDF preferences window (**Tools / Preferences / PDF preferences**).

Creating Quotations Using Drag & Drop

This technique allows you to virtually "throw" pieces of text into the quotations list. This however only works for textual, not of PDF files (txt, doc, docx, rtf).

Move the mouse pointer into the selected text. The pointer will change to its "drag & drop" appearance.

By holding down the left mouse button, drag the selection into the quotation drop-down list or the Quotation Manager.

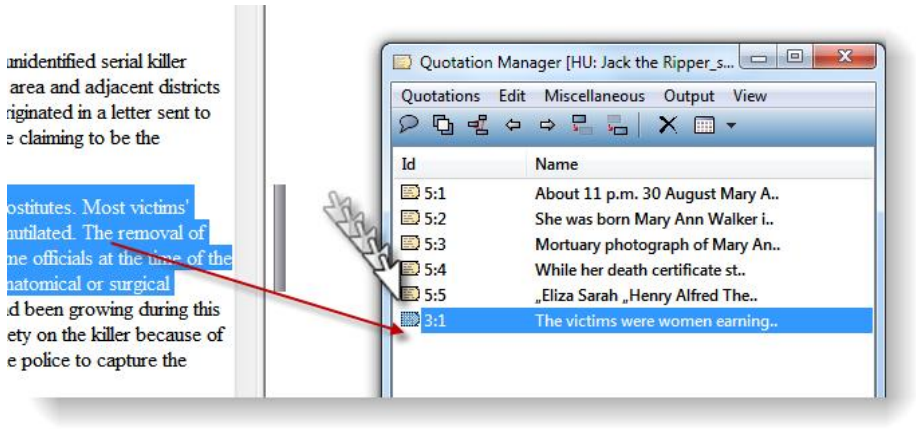

Quotation Manager [HU: Jack the Ripper_s...
Quotations Edit Miscellaneous Output View
Id Name
5:1 About 11 p.m. 30 August Mary A..
5:2 She was born Mary Ann Walker i..
5:3 Mortuary photograph of Mary An..
5:4 While her death certificate st..
5:5 „Eliza Sarah „Henry Alfred The..
3:1 The victims were women earning..

Figure 123: Creating quotations using drag & drop

You have just created a quotation. A new entry appears in the quotations drop-down list and the Quotation Manager. In the margin, a bar will be displayed.

Quotations are also be created in the course of coding or memoing using drag & drop.

Quotation References

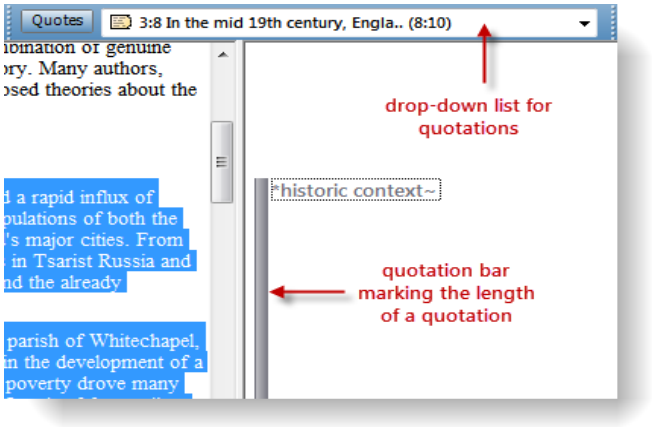

Quotes
3:8 In the mid 19th century, Engla.. (8:10)
drop-down list for quotations
historic context~
quotation bar marking the length of a quotation

Figure 124: Quotation reference

The bars in the margin mark the length of the quotation graphically. The entry in the quotation field shows a textual reference for the quotation. It consists of the following elements: ID, name, start and end position.

ID: The quotation ID is composed of the number of its P-Doc and a second number indicating when the quotation was created. The ID 8:1 means that the quotation is from P-Doc 8 and is the first one that was created in this document. The reason for the chronological numbering is to do with the fact that you will not necessarily code a document from the first line to the last. You

will jump between passages and modify or delete some quotations during the coding process. A linear numeration would have to be updated with every single quotation that is inserted, which would take up unnecessary computation capacity. Sorting the quotations by their start position, for example, offers a clear linear view of your quotes. Recently an option was added to change the chronological numbering to a sequential order if need be (QUOTATIONS / MISCELLANEOUS / RENUMBER ALL TO DOCFLOW). This can for example be useful when coding open ended questions from survey data and you want to keep the cases in synch with the cases in the SPSS file.

Name: The name shows the first 30 characters of a textual quotation. This is the default setting which can be changed under TOOLS / PREFERENCES / GENERAL PREFERENCES. Quotations based on image, audio or video files show the file name. The name of a quotation can be renamed. This is a useful option for image, audio and video quotations, as we will see below.

Start and end positions: The figures in brackets after the quotation name show the location (start and end position) in the document. For textual quotations, the reference given is to the paragraph numbers within which the coded segment occurs. (9:9) thus means that the quotation starts and ends in paragraph 9.

For image files, the rectangular area marked as the quotation is referenced. Audio and video quotes use a time reference: (hours:minutes:seconds:milliseconds)

References for PDF quotations consist of: page number and number of characters on the page for start and end positions. In case the document contains columns, the column number is provided as well.

Video tutorial: http://www.youtube.com/watch?v=bU6nu-aWhYM

Activating And Displaying Textual And PDF Quotations

Quotations can be activated (retrieved) and displayed by selecting an entry from the drop-down list, by double-clicking on an entry in the Quotation Manager, or by clicking on the quotation bar in the margin area.

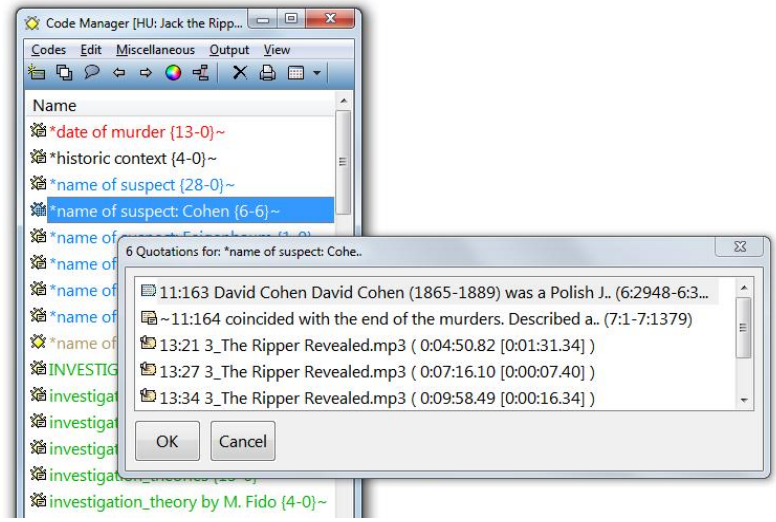

Code Manager [HU: Jack the Ripp...
Codes Edit Miscellaneous Output View
Name
*date of murder {13-0}~
*historic context {4-0}~
*name of suspect {28-0}~
*name of suspect: Cohen {6-6}~
6 Quotations for: *name of suspect: Cohe..
11:163 David Cohen David Cohen (1865-1889) was a Polish J.. (6:2948-6:3...
~11:164 coincided with the end of the murders. Described a.. (7:1-7:1379)
13:21 3_The Ripper Revealed.mp3 (0:04:50.82 [0:01:31.34])
13:27 3_The Ripper Revealed.mp3 (0:07:16.10 [0:00:07.40])
13:34 3_The Ripper Revealed.mp3 (0:09:58.49 [0:00:16.34])
OK
Cancel
investigation_theory by M. Fido {4-0}~

Figure 125: Activating quotations via its code

Coded quotations can be retrieved by double-clicking on an associated code (see "Code Manager" for detail). Quotations can also be activated from the results pane of the Query Tool (see "Output of Query Results").

A quotation can be activated and displayed from virtually any browser displaying quotations: drop-down list, Object Manager, Network Editor, Object Crawler, HU Explorer, etc.

Modifying Textual And PDF Quotations

This feature lets you change the boundaries (start and end position) of a quotation.

Activate the quotation if not already selected.

Select a data segment that you actually want to use as this quotation. When increasing the size of the quotation, you can simply highlight the text that you want. If you want to reduce the size of the quotation, you need to deselect the selection first by clicking somewhere above or below the highlighted area. Then select a smaller section. When resizing PDF quotations, you can conveniently use the handles at the upper left and lower right-hand corners.

Click the modify button, located to the left of the text window or choose **Modify Boundaries** from the main Quotations menu.

The quotation will be changed reflecting the new boundaries.

New Boundaries Match Existing Quotation

If the new boundaries match another existing quotation, you are asked for confirmation to "merge" the currently modified and the already existing quotation. The quotation resulting from the merge operation collects the references of both quotations. For example, if the modified quotation was

coded with code A and the existing quotation with matching boundaries with code B, the new quotation will be referenced by both code A and B.

If you modify a previously renamed text quotation, you are asked for confirmation using the newly selected string (truncated) as its new name.

Creating And Working With Graphical Quotations

Selecting graphical segments differs from the operations required for selecting segments within textual documents. However, the overall look and feel is sufficiently similar.

Move the mouse pointer to the upper left corner of the rectangular section that you are going to create.

Drag (holding down the left mouse button) the mouse to the lower right corner of the rectangle.

Figure 126: Graphical quotation

Release the mouse button. You have now created a selection and the rectangle will be highlighted.

To create a quotation, select the "create quotation" button in the vertical tool bar, or right click on the selection, then select **Create free Quotation** from the context menu; or select this option from the main menu **Quotations / Create Free Quotation**. All quotations within a graphical document are numbered consecutively.

Activating And Displaying Graphical Quotations

Graphical quotations in a document appear as rectangles. The selected quotation is emphasized.

In addition to the general activation procedures described for textual quotations, a graphical quotation can be activated by directly double-clicking within its "box" in the document pane. Where two or more quotations intersect, you are presented with a list of quotations from which to choose.

All graphical quotations are indicated by borders. A selected quotation is depicted either framed or filled. To change the display:

Right-click anywhere within the graphical image and select **Selection-Display Type** / Filled.

Figure 127: Filled display of a graphical quotation

Permanent display of graphical quotations' frames can be toggled off and on. To change the permanent display:

Right click an area on the graphical document and choose ***Toggle Areas Display*** from the context menu.

Modifying Graphical Quotations

To modify an image quotation, double click inside the rectangle so that you see the green lines and dots at the four corners. The dots act like handles and you can use them to resize the quotation.

Figure 128: Use the handles to resize the quotation

Select the area that you actually want to use as quotation.

Click the modify button on the vertical tool bar, or choose **Quotations / Modify Boundaries** from the main menu.

The quotation will be changed reflecting the new boundaries.

Creating And Working With Multimedia Quotations

Load a video primary document, e.g. "P6: Happiness proverbs of famous people" in the sample project.

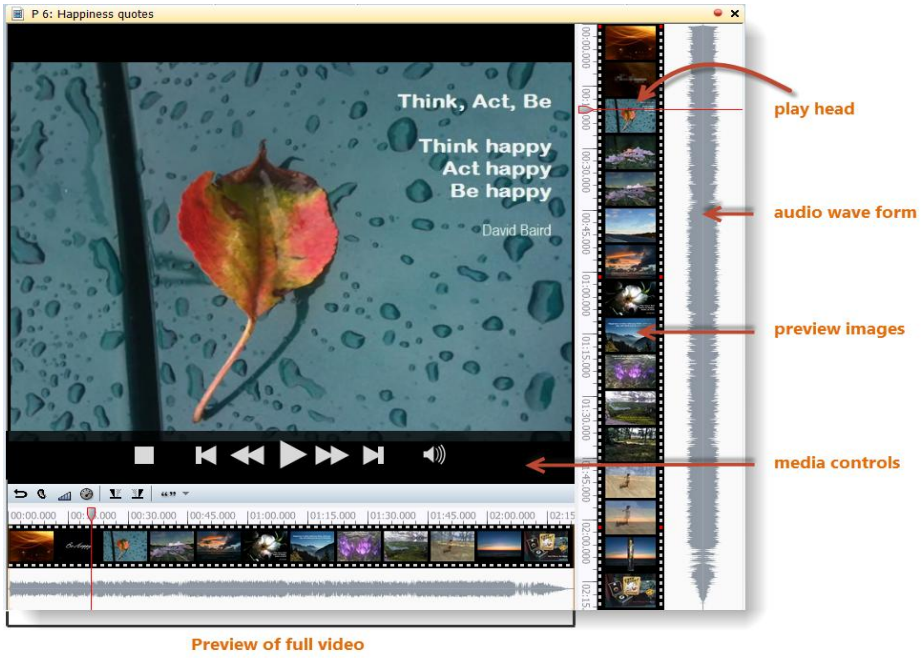


Figure 129: The various aspect of a loaded video document

At the right-hand side, preview images are displayed. When you add a new video to a project, you do not immediately see the preview images as they first need to be created. Depending on the length of the video this may take a few seconds or up to a few minutes (see "Adding Multimedia Documents").

If you move the cursor inside the video pane, the media controls appear and you can start, stop and pause the video, skip forward and backwards. You can also start and stop the multimedia file by pressing the space bar.

Context Menu Of Preview Pane

If you right-click on the video preview, you can set a number of display options in the context menu (see Figure 129).

Figure 130: Quotation overlay

You can **hide or display** the video preview and audio wave form.

If you mark a segment by moving with your mouse over the video previews, **time indicators** are display: start and end position and total length of the segment.

By default the **left and right audio channel** are displayed as one audio wave form. If needed, you can separate the left and right channel and display two audio wave forms.

Select **Waveform Zoom Factor** to adjust the size of audio wave.

Use **Auto-Scroll** if only parts of the video is displayed in the margin area and you want the margin area to automatically scroll if you play the video. See Figure 134).

Show Quotation Overlay to see the quotation boundaries displayed on top of the video preview.

Context Menu Of Document Pane

The options offered by the media controls and the multimedia tool bar (see Figure 132) can also be accessed via the context menu:

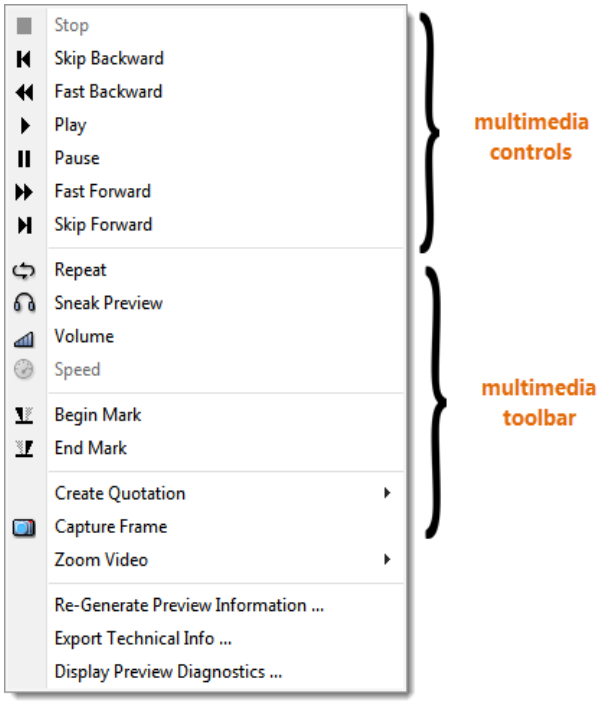


Figure 131: Context menu of document pane

Further you have the option to change the display size of the video (Zoom Video), to generate the preview images again and to display and export some technical information. The latter options you only need if there was a problem with generating the preview images.

The Multimedia Toolbar

Figure 132: The multimedia toolbar

Tool	Description
Repeat/Loop	Repeats either the complete file or any selected segment until the pause or stop button is clicked. Especially useful to repeat noise-covered or otherwise hard-to-understand passages during transcription.
Sneak Preview	Helps to fine-tune a segment end, e. g. to isolate a word from a contiguous spoken text. When moving the position while the Sneak Preview mode is active, a short "preview" of 500 milliseconds (or 2 frames for video data) is played repeatedly, making it easier for marking the boundary of your segment. Using this function takes practice and is best used in combination with the cursor keys.
Adjust audio volume	Click to adjust the volume.
Adjust play speed	Click to adjust the speed (not yet implemented in Version 7.0.xx)
Selection start	The current position is made the start coordinate of a quotation to be created. Keyboard shortcut: **< OR ,**
Selection end	The current position determines the end coordinate of a quotation. Keyboard shortcut: **> OR .**
Create and modify quotation	Creates a free quotation from the current selection. This button is disabled unless a valid segment is marked, or if the segment already matches an existing quotation. Keyboard shortcut: q (note: q also starts a new selection). In combination with the **CTRL** key, this button trims the current media quotation to the current selection.
Create snapshot	Create a snapshot of the currently displayed video frame as image PD. You will then be asked whether to import the image into My Library or the Team Library.

Zooming The Time Line

You can zoom the time inline to select just the section of the audio or video that you want to see in the margin area:

When you move the mouse pointer over the full preview, two orange sliders appear (see Figure 133 and Figure 134):

Figure 133: Zooming the time line

Move the right and left slider to the desired position. Time indicators display start and end position and length of the selection.

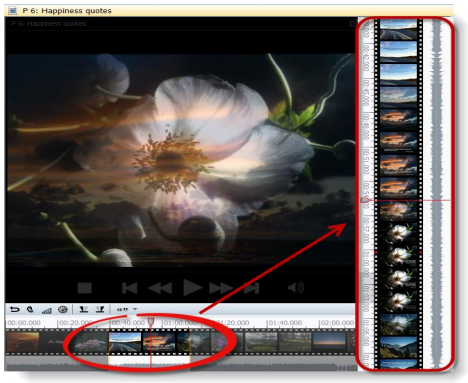


Figure 134: Selecting an area of the video file to be displayed in the margin area

Navigating Through The Audio Or Video File Via The Playhead Pointer

Use **page up / page down**, to move the position of the playhead pointer by 1/50th increments of the length of the video that is currently displayed in the margin area.

Use the **arrow keys**, to move the position of the playhead pointer by 1/1000th increments of the length of the video that is currently displayed in the margin area.

Use **the arrow keys + the Ctrl-key**, to move the position of the playhead pointer by 1/20th increments of the length of the video that is currently displayed in the margin area.

Creating Audio Or Video Quotations

Using The Mouse-pointer

To code a video segment, move your mouse pointer on top of the audio wave and mark a section by clicking on the left mouse button where you want it to start. Then drag the cursor to the end position.

Figure 135: Selecting a video segment

Using Short-cuts

There are two alternatives to mark start and end positions by using keyboard short-cuts. Move the playhead pointer to the desired start position. Select **<** or **,** to set the starting point.

Move the playhead pointer to the desired end position. Select **>** or **.** to set the end point of a segment. Depending on your keyboard one of the two option (<> or ,.) is more convenient to use.

Previewing The Selection

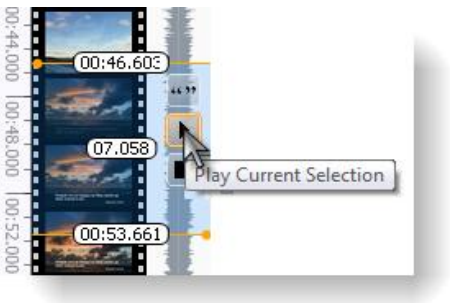


Figure 136: Playing the current video selection

If you want to preview your selection click on the "play current selection" button.

Click the **Create Quotation** button (see Figure 136) to create a free quotation.

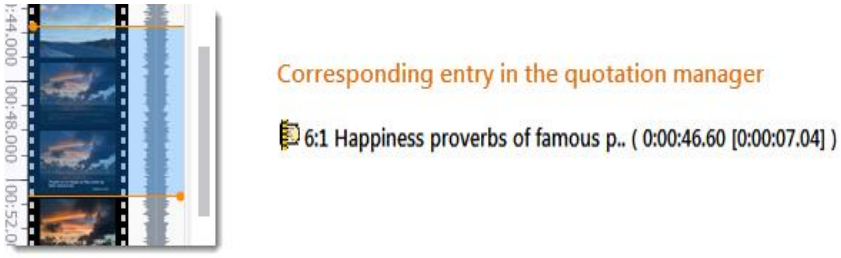


Figure 137: Display of a video quotation

A new quotation will be listed in the Quotation Manager. The default name for audio and video quotations is the document name. Each quotation can, however, be renamed. To do so, right click on the quotation name in the Quotation Manager and select the **Rename** option. See also "Describing Multimedia quotations to improve output").

In addition the start position and the length of the segment -this is the number in brackets) in form h:min:sec:millisec is provided.

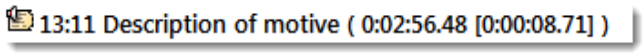


Figure 138: Renamed audio quotation showing time references

Audio and video quotations can be easily recognized by their special icon.

Activating And Playing Audio And Video Quotations

To play the quotation, double-click on the quotation bar.

If you want to move the play-head to the beginning of an existing quotation, hold down the Ctrl-key and click on the quotation bar.

You can also move the playhead pointer with the mouse. As soon as you move it either over the start or end position, the pointer snaps. To override this behavior, hold down the SHIFT-key.

Figure 139: Positioning the playhead pointer at a beginning of a quotation

Click the space bar to stop and start an audio or video file.

Adjusting The Size Of Audio Or Video Quotations

To adjust or change the length of the quotation, drag the start or end position to the desired place and click on the "modify quotation" button in the vertical tool bar on the left hand side of the screen (see Figure 140 below).

Figure 140: Adjusting the size of a video quotation

You can also use the playhead pointer to adjust the size of a quotation: Position it at the desired point. If you want the start position to change, hold down the SHIFT-key and double-click on the area above the playhead pointer. To change the stop position, hold down the SHIFT-key and double-click on the area below the playhead pointer.

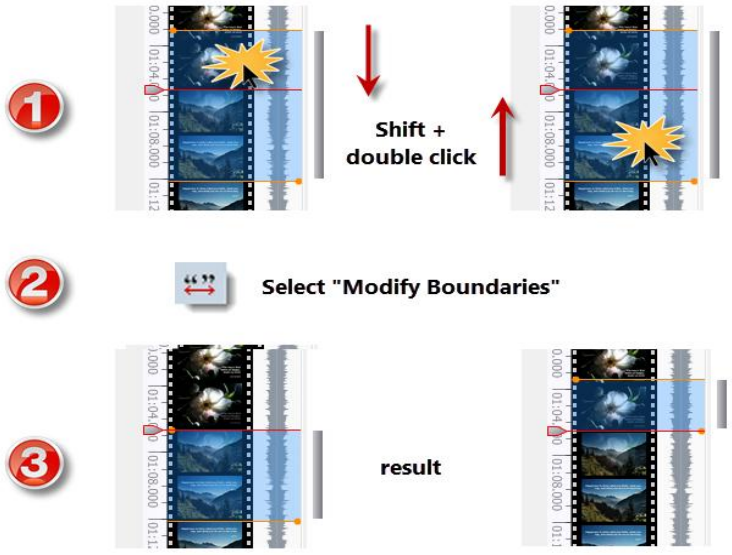


Figure 141: Using the playhead pointer to adjust the size of a video quotation

Creating Snapshot Images From Video Frames

If you want to analyze particular frames of your video in more detail, you can create a snapshot. The snapshot is automatically added as new image PD to your project.

Move the playhead to the desired position in the video.

Click on the camera icon in the multimedia tool bar, or right-click on the video area and select the option **Capture Frame** (or from the main menu select Documents / New / New Video Snapshot PD).

Creating And Working With Google Earth Quotations

Creating Google Earth Quotations

If you haven't done so, you first need to assign a GoogleEarth PD: **Documents / New / New GoogleEarth PD.** Then load the Google Earth PD by selecting it from the drop-down list. This loads Google Earth into the ATLAS.ti editor.

Open the Quotation Manager alongside the HU editor.

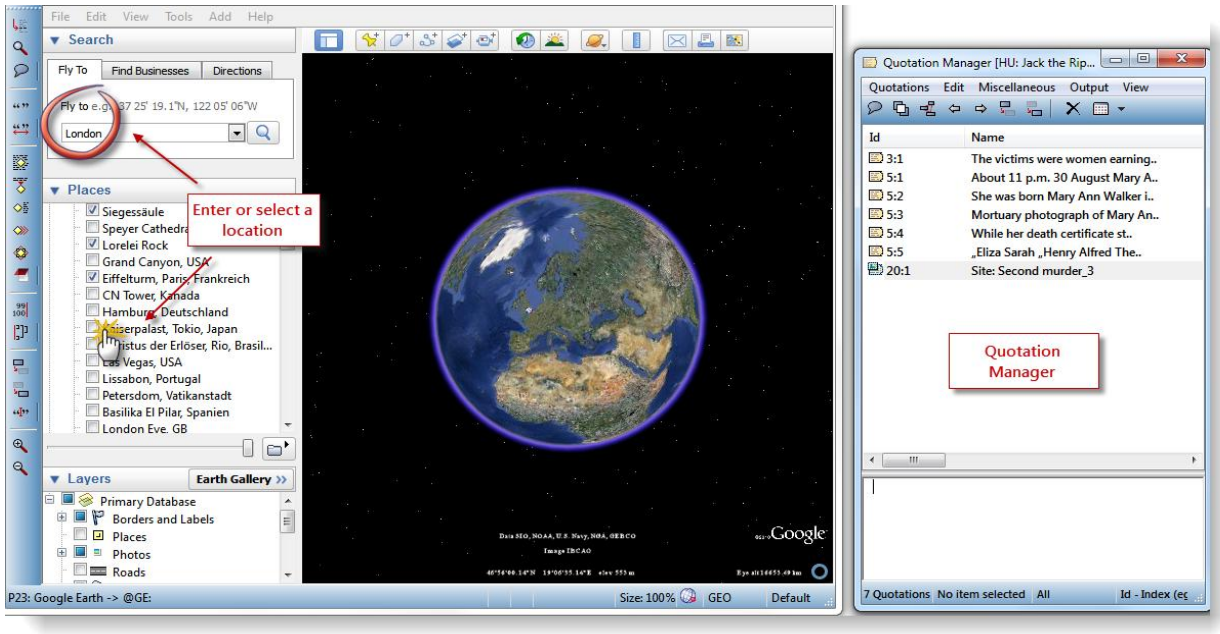


Figure 142: Enter or select a location to fly to

To create a new quotation, position Google Earth to whatever location you want, e. g. by entering a location in the **Fly to** field or by selecting a location in the list of Places.

Double click to select the place where the quotation should be attached to. If you have selected a location from "My Places", this is not necessary.

Next, click the Free Quotation button in the vertical toolbar left of the PD area or choose **Create Free Quotation** from the Quotations menu.

The default name of the quotation is the name of the primary document, e. g.. "Google Earth". In case you have selected a feature as quotation like a place from the list of saved places in Google Earth, the name of this place is used. In addition, the geographical reference is provided.

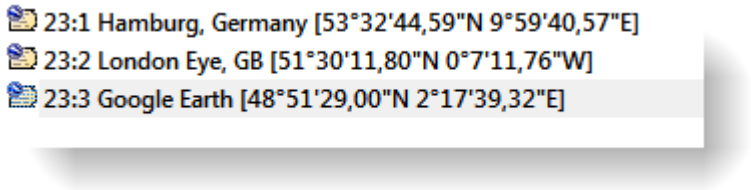


Figure 143: References for Google Earth quotations

Whether the PD name or the feature's name is used, can be set via **Tools / Preferences / Google Earth Preferences.** Depending on your project needs, you may choose to rename the quotations.

Activating Google Earth Quotations

In the first instance, you only see the newly created quotations within the Quotation Manager or in the drop down list. In order to see the information in Google Earth as well, the information needs to be transferred. Thus, the ATLAS.ti Google Earth PD needs to be "injected" into Google Earth. This is easily done by reloading the PD.

For the ATLAS.ti placemark in the GE document, the name of the quotation is used. In addition, you see the quotations in the Places Panel under Temporary Places on the left hand side.

To reload a PD, select it from the drop down list by holding down the Ctrl-key. OR: select the menu option **Documents / Miscellaneous /Update Google Earth PD.**

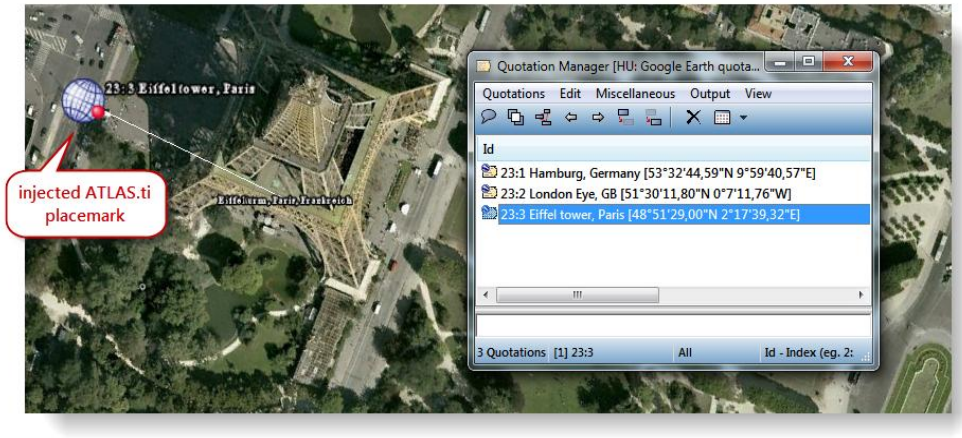

23: 3 Eiffel tower, Paris
injected ATLAS.ti placemark
Quotation Manager [HU: Google Earth quota...
Quotations Edit Miscellaneous Output View
Id
23:1 Hamburg, Germany [53°32'44,59"N 9°59'40,57"E]
23:2 London Eye, GB [51°30'11,80"N 0°7'11,76"W]
23:3 Eiffel tower, Paris [48°51'29,00"N 2°17'39,32"E]
3 Quotations [1] 23:3
All
Id - Index (eg. 2:

Figure 144: The ATLAS.ti placemark shows the location of the quotation within the GE map

Displaying Google Earth Quotations

The hierarchy of the elements under temporary places in GE resembles the structure of the HU. At the top, you see an ATLAS.ti root folder for each HU in the session. Below this folder, the name of the HU is repeated and all its Google Earth PDs and quotations are created as GE features. If you write a comment for a GE quotation or document, it will be shown as well.

Clicking on a quotation's place mark in GE will show a balloon description with meta information like its codes or memos. If you have written a comment for the GE quotation, it can be shown as well.

Places
Roter Platz, Moskau, Russland
Mount Saint Helens, USA
Ehemaliger Republikpalast, Bagdad, Irak
Manhattan Island, USA
Verbotene Stadt, Peking, China
Reichstag, Berlin, Deutschland
Google Campus, USA
Temporary Places
ATLAS.ti - Google Earth quotations
Google Earth quotations
This sample project can be used for a number of different purposes:
to demonstrate various software features
to complete the steps described in our
P23: Google Earth
23:1 Hamburg, Germany
23:2 London Eye, GB
23:3 Eiffel tower, Paris
23: 3 Eiffel tower, Paris
23:3 Eiffel tower, Paris
The Eiffel Tower is a puddle iron lattice tower located on the Champ de Mars in Paris. Built in 1889, it has become both a global icon of France and one of the most recognizable structures in the world. The tower is the tallest building in Paris[10] and the most-visited paid monument in the world; millions of people ascend it every year. Named for its designer, engineer Gustave Eiffel, the tower was built as the entrance arch to the 1889 World's Fair.
Quotation: 23:3 in PD P23: Google Earth
Codes[0]: none
Memos[0]: none

Figure 145: Display of quotation comments in GE

Modifying Google Earth Quotations

To modify a quotation, select it in the Quotation Manager.

Double click on a new location where it should be moved to.

Select the "revise quotation" button from the vertical tool bar. Or select **Quotations / Modify Boundaries** from the main menu.

Moving Around

By default traveling to another quotation is by flying. When you press the SHIFT key during a transfer, you are "tele-ported" to the other location directly. The default speed can be set via **Tools / Preferences / Google Earth Preferences.**

Extrusion – Display Quotations At Elevated Levels

Usually the placemark icons are fixed to the ground. For hilly environments or between large buildings you can raise the icon like a balloon to a certain height (in meters) above ground. The icon is always tied to the ground with a connecting line. You can set extrusion via **Tools / Preferences / Google Earth Preferences.**

Display A GE Quotation In Google Maps

If Google Earth is just too heavy, you may open a GE quotation in Google Maps instead.

Select a quotation, e. g. in the Quotation Manager.

From the Miscellaneous menu, select **Open in Google Maps.**

If you have created hyperlinks to Google Earth quotations, right click on the hyperlink and select the option **Open in Google Maps.**

This opens your Internet browser on the same location. However, you do not have tilt and heading. Currently, there is a fixed zoom factor for the Google Map view.

Import Google Earth Quotations

If KM* files include placemark features, these can be imported as quotations. The meta information that was inserted into the placemark is inserted into the quotation comment field in ATLAS.ti. The default setting is to import placemarks during the process of assigning a KML / KMZ file as primary document. This can be configured in the GE Preferences window.

Assign a KML or KMZ file as primary document (**Documents / New / Assign External Documents**).

Currently, KML and KMZ files have to be created in GoogleEarth. If you have created them elsewhere, open them in GoogleEarth and save them again. Then assign them.

Next, select **Documents / Miscellaneous / Import Quotations from KMZ/KML** from the main menu.

Create Graphical Snapshot PDs

The images provided by Google Earth are not stable. They may change over time. When views are changed is not known to the regular user. Thus, although positions on earth are stable, the views are not.

A new set of aerial and satellite images may yield a whole different set of details. This makes making snapshots from a current view a practical thing. Furthermore you can code detailed sections within a graphical PD. Such PDs do not require Google Earth to be installed.

Position Google Earth to the desired view either manually or by selecting a GE quotation.

Resize the GE window to the desired size. The content you see will be used for the PD. Only the main area is used, the side bar title etc. are ignored.

Configure all needed layers.

From the drop down Add button or the main Documents menu, select **New GoogleEearth Snapshot PD**.

A new PD is created. The naming convention is as follows:

If selecting a quotation in the Quotation Manager and creating a snapshot based on that view, the name for the PD will be Google Earth SN (SN for Snapshot).

If selecting a quotation from the Google Earth sub tree in the Places Panel, the name that is shown there is used with the prefix GESN:.

Thus, if you have given your quotation a unique name and want to use it as name for your PD snapshot, then it might be preferable to select the quotation from the Places Panel. If you prefer neither of the two standard options, you can always rename the newly created snapshot PD.

The source files for the snapshot PDs are jpg; they are stored in the same folder as the HU and their name starts with GES plus a two digit letter/number combination.

This feature is only available if GE has already been started. - Repeated entries: If you close ATLAS.ti and restart while GE is still open, GE creates a new feature hierarchy for each HU. You can either manually remove the feature tree from the GE places panel or close it and let ATLAS.ti start it for you by loading a Google Earth PD..

Deleting Quotations

Quotations can be deleted. Of course, nothing is removed from the primary document's data source.

Deleting a quotation affects only its references. "Free" quotations are deleted silently. However, if references to codes, quotations, or memos exist, you are prompted for confirmation.

The option to delete quotations is available in a number of different places: the main menu, the Quotation Manager (**Quotations / Delete**), the HU Explorer, and the margin area. To delete a quotation in the margin area, right click on the quotation bar and select the option **Delete**.

You can also right-click on a highlighted quotation and select the Delete option from the context menu there:

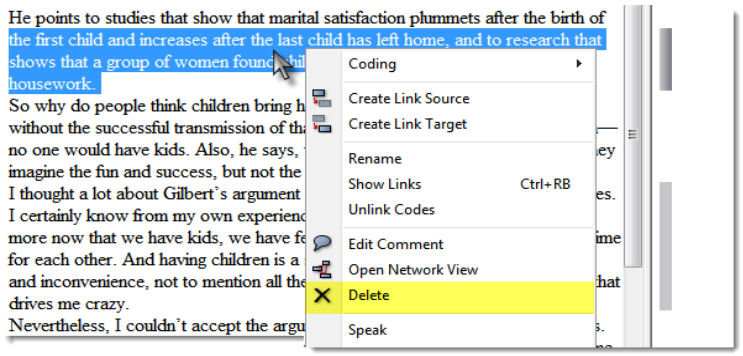

He points to studies that show that marital satisfaction plummets after the birth of the first child and increases after the last child has left home, and to research that shows that a group of women found
housework.
So why do people think children bring h
without the successful transmission of th
no one would have kids. Also, he says,
imagine the fun and success, but not the
I thought a lot about Gilbert's argument
I certainly know from my own experienc
more now that we have kids, we have fe
for each other. And having children is a
and inconvenience, not to mention all the
drives me crazy.
Nevertheless, I couldn't accept the argu
Coding
Create Link Source
Create Link Target
Rename
Show Links Ctrl+RB
Unlink Codes
Edit Comment
Open Network View
Delete
Speak

Figure 146: Deleting a quotation using the context menu

Deleting Quotation(s) In The Quotation Manager

- Select the quotation(s) in question.
- Click the **Remove** button.

If references exist for the quotation, confirm or reject the deletion process.

All quotations of a primary document are deleted when the primary document is disconnected from the Hermeneutic Unit.

Coding Techniques

The coding procedures described in this section do not fully encompass the complexity of the intellectual activity of coding as, for example, understood in Grounded Theory (GLASER & STRAUSS, 1967).

In ATLAS.ti coding is simply the procedure of associating code words with selections of data. Technically speaking, "coding" is the association between a quotation and a code. The following describes ways to establish, maintain, or remove such associations. Although some of the coding techniques reflect the ideas and terminology used in Grounded Theory, you do not have to use this methodology when analyzing your data within ATLAS.ti.

Four coding procedures are described: **Open Coding**, **In-Vivo Coding**, **Code-by-List**, and **Quick Coding**. In addition, the purpose and creation of free codes are explained. Text search and automatic coding is described further below in a separte chapter (see "The Auto-Coding Tool").

Make code names as succinct as possible.

A code may contain more than a single word, but should be concise. Use the code comment area to write a definition. If you find yourself writing prose instead of a succinct code name, you might in fact want to annotate. If this is the case, use comments or memos instead.

Video Tutorials:
Coding Basics: http://www.youtube.com/watch?v=TUZpXEySp1U
Code Management: http://www.youtube.com/watch?v=_f1jO3B4Z18
Margin Area (1/2): http://www.youtube.com/watch?v=N8e9jPhTXNg
Margin Area (2/2): http://www.youtube.com/watch?v=kfyPwkrFYAA

General Coding Procedure

There are some common steps with each of the coding procedures described below.

First of all, it is useful to switch on the margin display to see the immediate effects of the coding process (note: there is no margin area for audio and video documents). The margin area also permits the direct manipulation of the codes and the associations between the quotations and the codes.

To Display The Margin Area

Choose **Views / Margin Area** from the main menu, or click the Margin Area button in the primary document toolbar. The margin area is a useful feedback device during coding. Codes are displayed alongside the quotation to which they are attached.

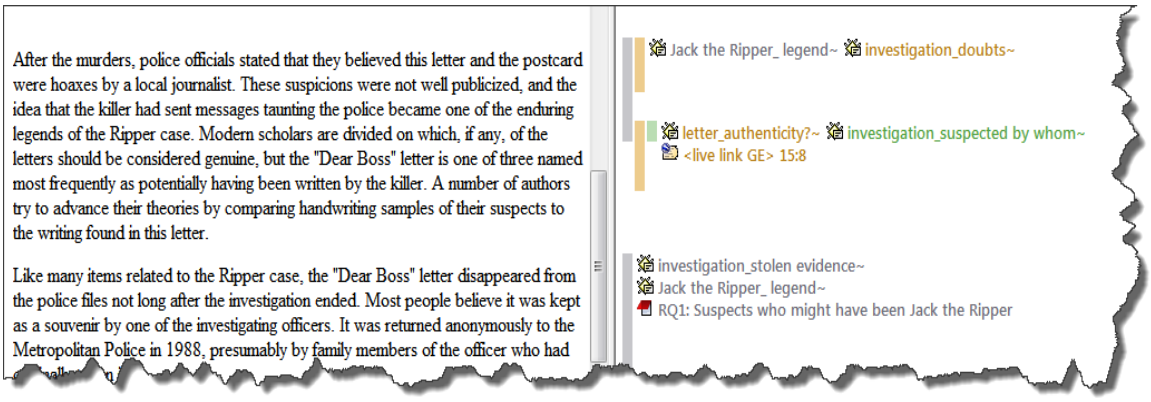

After the murders, police officials stated that they believed this letter and the postcard were hoaxes by a local journalist. These suspicions were not well publicized, and the idea that the killer had sent messages taunting the police became one of the enduring legends of the Ripper case. Modern scholars are divided on which, if any, of the letters should be considered genuine, but the "Dear Boss" letter is one of three named most frequently as potentially having been written by the killer. A number of authors try to advance their theories by comparing handwriting samples of their suspects to the writing found in this letter.
Like many items related to the Ripper case, the "Dear Boss" letter disappeared from the police files not long after the investigation ended. Most people believe it was kept as a souvenir by one of the investigating officers. It was returned anonymously to the Metropolitan Police in 1988, presumably by family members of the officer who had
Jack the Ripper_ legend~ investigation_doubts~
letter_authenticity?~ investigation_suspected by whom~
<live link GE> 15:8
investigation_stolen evidence~
Jack the Ripper_ legend~
RQ1: Suspects who might have been Jack the Ripper

Figure 147: Text with switched on margin area

The size of the margin area can be changed by dragging the split bar between the primary document pane and the margin area with the left mouse button.

Coding creates quotations for selected data sections if needed.

Coding results in codes linked to quotations. Any number of codes may be assigned to a quotation and vice versa: a code may refer to any number of quotations. Coding implicitly creates quotations for data segments that do not already match an existing quotation.

You may activate the basic coding procedures either in the primary document toolbar, the **Coding** submenu of the **Codes** menu, the Code Manager or the context menu of the data selection.

The coding options in the primary document toolbar:

	Open Coding (Ctrl+Shift+O) Create a new code, ask user for name of code
	Code In Vivo (Ctrl+Shift+V) Creates a code from the selected text
	Code by List (Ctrl+Shift+L) Selects existing codes from code list
	Quick Coding (Ctrl+Shift+Q) Codes with the last used code
	Codes Text Search Results Codes the results of a text search

How Codes Are Displayed

After a code has been created, it appears as a new entry in several locations (e.g., in the margin area, the drop-down list, the code manager).

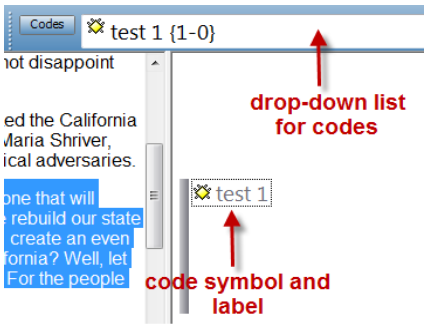


Figure 148: Codes in ATLAS.ti

The selected code word is written next to the quotation bar in the margin. You can recognize codes by the yellow diamond symbol.

The entry in the drop-down list in Figure 124: Quotation reference reads: "test 1 {1-0}". The first number shows the frequency (how often the code has been applied). It gives you some information on the groundedness of a code, i. e. how relevant this code is in the data. The second number the density (how many other codes this code is linked to). Hence the code "Test 1" has been used only once so far and it is not yet linked to any other code.

Display Of Codes In The Code Manager

The Code Manager provides a number of typical Windows display options like Large Icons, Small Icons, List and Details. See "View Menu"and "Code Manager Columns."

The Single Column View

Within curly brackets following the code name, groundedness and density are displayed.

Figure 149: Code display

Grounded(ness). As explained above, groundedness refers to the number of quotations associated with a code. In the above example, groundedness is 8. This means, the code **name of suspect: Kosminski* has been used for coding eight times.

Density. In the above example the density is 2, thus two codes have been linked to the code **name of suspect: Kosminski*. Links between codes are established by the user either by dragging and dropping codes onto each other in the Code Manager or by linking them in in a Network View (see section "Linking Nodes").

Comment. The tilde character "~" flags commented codes. It is used not only for codes but for all commented objects.

Coding With New Codes

Open Coding assigns new codes with already existing or newly created quotations. You can create one ore more codes in a single step.

Select the data section or the quotation you want to code.

Click the Open Coding button (see left) or choose **Coding / Enter Code Name(s)** from the main or the context menu.

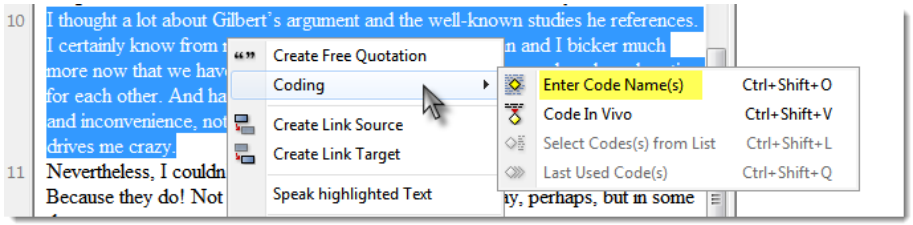


Figure 150: Creating one or more new codes using the context menu

A dialog will open. Enter one or more code names and click **OK**. To enter a second code name either click with the mouse into the second entry field, or if you are used to enter the vertical bar, you can also use the vertical bar (|) to jump to the next line.

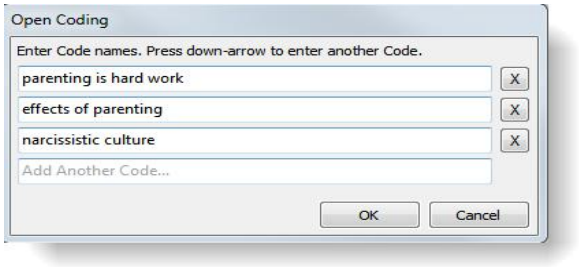


Figure 151: Entering code names

If a few codes already exist, you see whether a similar code name already exists as the fields are automatically completed as you type.

The new code now appears in the Code Manager. The coded segment (quotation) is displayed in the Quotation Manager.

Write comments!

Make it a habit to write a comment for every new code (see "Writing Code Comments").

The Code Manager offers bi-directional drag & drop.

Coding Via Drag & Drop From The Code Manager

An easy way of coding is via Drag & Drop from the Code Manager.

- Select a data section.
- Open the Code Manager.
- Select one or more codes in the Code Manager.

Drag and drop the codes into the primary document pane. If a quotation already exists, you can alternatively drop the code onto a quotation bar in the margin area.

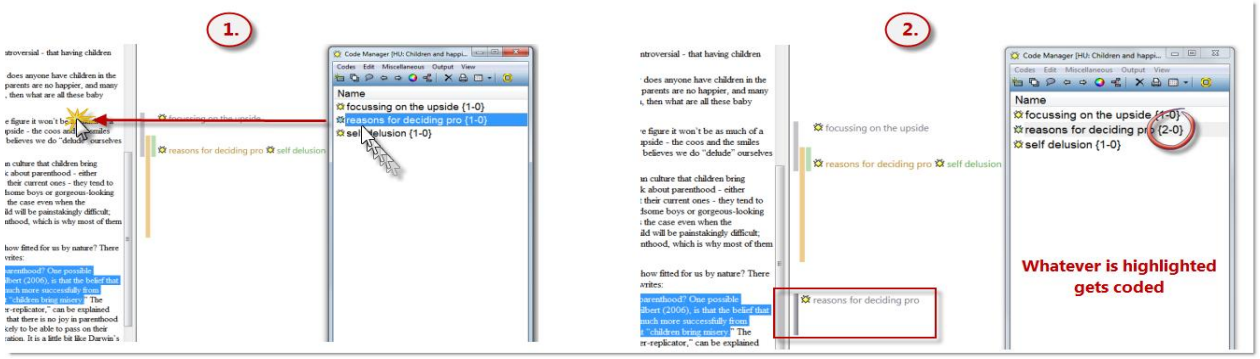


Figure 152: Coding via drag & drop

It is not necessary to drop the codes into the selected area. You may drop the codes anywhere inside the primary document pane.

Use The Code Button In The Code Manager For Coding

- Highlight one or more codes in the Code Manager and click on the code button in the manager's tool bar (see Figure 153):

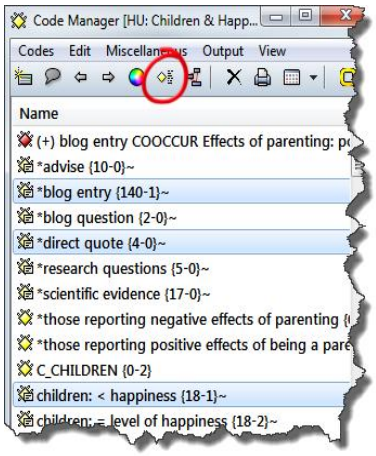

Code Manager [HU: Children & Happ...
Codes Edit Miscellaneous Output View
Name
(+) blog entry COOCCUR Effects of parenting: p
*advise {10-0}~
*blog entry {140-1}~
*blog question {2-0}~
*direct quote {4-0}~
*research questions {5-0}~
*scientific evidence {17-0}~
*those reporting negative effects of parenting
*those reporting positive effects of being a pare
C_CHILDREN {0-2}
children: < happiness {18-1}~
children: = level of happiness {18-2}~

Figure 153: Use the code button to code a segment with one or more selected codes

The term "in-vivo" in this context stems from grounded theory, which draws the researcher's attention to expressions used by the interviewees themselves.

In-Vivo Coding

Use in-vivo coding when the text itself contains a useful and meaningful name for a code.

In-vivo coding creates a quotation from the selected text AND uses the selected text (trimmed to 30 characters) as the code name. If the selected text's boundaries are not exactly what you want for the quotation, modifying the quotation's "spread" (see "Modifying Textual and PDF Quotations") is often the next step after creating the in-vivo code.

In-Vivo coding can only be applied to textual primary documents.

To Create An In-Vivo Code

- Mark the text passage that you want to use as an in-vivo code. Bear in mind that the code name is created from the text selection's first 30 characters .
- Click the In-Vivo coding button or choose *Coding / In-Vivo Coding* from the menu.
- If needed, change the newly created quotation's boundaries ("Modifying Textual and PDF Quotations" for details).

In-Vivo Coding Via Drag & Drop

- Mark the text passage that you want to use for In-Vivo coding.
- Open the Code Manager.
- Drag and drop the selected text into the Code Manager's list pane or the code drop-down list.

Create multiple In-Vivo codes

You can create a code from each word of the selected text by holding down the ALT key when dropping the text.

Code-by-List

- Select the data section/quotation to be coded.
- Click the Code-by-List button or choose **Coding / Code by List** from the menu.
- From the list window with applicable codes select one or more codes (while holding the Ctrl key) and click **OK**.

This procedure offers a list of all current codes from which one or more code can be selected and associated with the current data selection.

The number of codes that you can select from the list is unlimited. If the data section resembles an existing quotation, only codes not already assigned to this quotation are offered.

Code-by-List Inverse

The standard code-by-list technique associates a list of codes to one selected quotation. Sometimes, it makes more sense to associate a list of quotations to one code.

Code multiple quotations in one go.

To Link A Code To Many Quotations

- In the Code Manager, or the drop down list select the code to be associated with one or more quotations.
- From the main or the code's context menu, choose **Codes / Coding / Link Code to:/ Quotations.**
- A list of quotations that were not already assigned to the selected code opens. Select one ore more quotations and click **OK.**

To Link A Code To Many Quotations Via Drag & Drop

- In the Quotation Manager select the quotations to be assigned to the code.
- Drag & drop the selected quotations into the Code Manager onto the code.

Quick Coding

Quick Coding assigns the last used code to the current data segment. This is an efficient method for the consecutive coding of segments using the most recently used code.

- Select a code in the Code Manager.
- Select a data segment.
- Click the Quick Coding button or choose **Coding/Quick Coding** from the menu.

Meaning Of Colored Bars In The Margin

As you saw in Figure 125: Activating quotations via its code, overlapping codes are displayed in different colors in the margin area. These colors help you to distinguish which bar belongs to which code word. If you were to add even more layers, the next two layers would be displayed in violet and blue. After that, silver is used again. The colors do not contain any information about the different code levels in the sense of higher or lower ranked categories. When you delete a quotation, the colors may change.

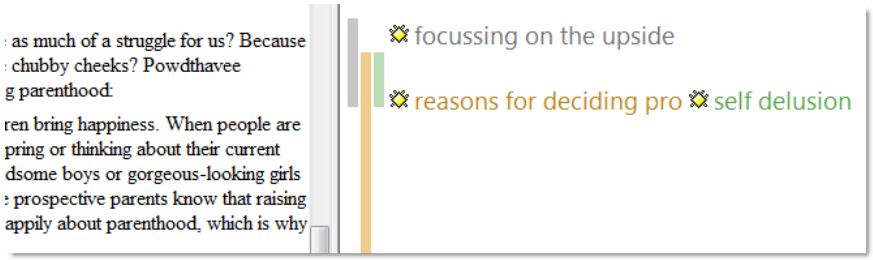

as much of a struggle for us? Because
chubby cheeks? Powdthavee
g parenthood:
ren bring happiness. When people are
pring or thinking about their current
dsome boys or gorgeous-looking girls
prospective parents know that raising
appily about parenthood, which is why
focussing on the upside
reasons for deciding pro
self delusion

Figure 154: Meanings of colored bars in the margin

It is possible to set your own colors for codes, but not for the bars marking the length of a quotation (see "Setting code colors" below).

Unlinking A Code

Just as you can erase a pencil mark in the margin of a paper document, you can "erase" a code in the margin area on screen as well. The digital equivalent is called unlinking. It is mostly used when a segment is coded with more than one code.

- To unlink a code, right click on the code in the margin area and click on the **Unlink** option.

When you unlink a code from a segment that only has one code, the bar remains in the margin. If you want to "erase" both the code and the quotation, you need to proceed as explained below.

Writing Code Comments

Use code comments to define your code words.

Like Primary Documents, comments can be added to clarify the meaning of a code or to explain how the code is to be used for coding. The practice of commenting objects greatly supports a transparent, and, if working as part of a team, cooperative working style.

Creating And Editing A Code Comment

- Open the code manager and select a code.
- Right click and select the option: **Edit Comment** from the context menu.
- A text editor opens. Write or edit an existing comment.
- Save the changes and close the editor.

You can also use the text pane in the lower part of the Code Manager (see "Editing Text") to create or edit a comment.

Writing Comments For Coded Segments

If you notice something interesting while coding and you want to write it down, use the quotation comment field for it.

- Right click on the highlighted quotation and select the option **Edit Comment** from the context menu.
- An editor pops up. Write a comment on the selected data segment.
- Save your comment by clicking on the **Accept** button and close the editor.

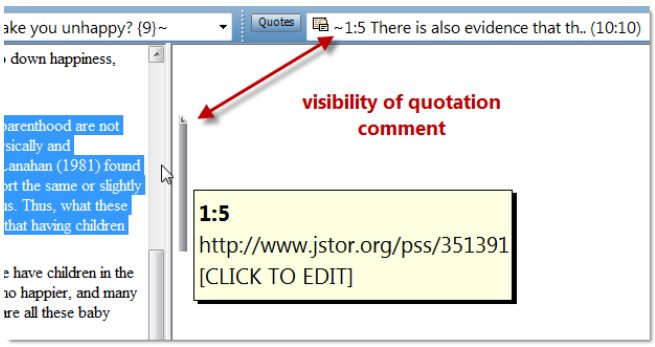


Figure 155: Drag & Drop coding

Quotation comments are visible in the bar in the margin area and by the tilde (~) sign in front of the quotation name in the quotations list.

Setting Code Colors

If you want to color your codes, select a code in the Code Manager and click on the rainbow colored circle in the tool bar.

To make code colors visible in the margin, right click on a white space in the margin area and select the option **Use Object Colors**.

In order to still be able see which code label belongs to which quotation bar, a small bar colored in the same color as the quotation bar is shown in front of the code label. The code label shows the user-defined color.

Coding PDF Documents

PDF documents allow for various ways of coding. Basically, there are no restrictions, you can code any area within the document. If it is text, you code the characters of the text. If the PDF file contains an image, then ATLAS.ti automatically switched to image mode and you code a rectangular area within the PDF file. Below you find a number of screen shots demonstrating the various options.

Coding As Usual

Just highlight a section of text as you do in other text documents.

The difference is that you can set a selection color (see PDF preferences) and that a PDF quotation has a "handle" on the top left and bottom right that you can use to easily modify the size of the quotation (see image below)

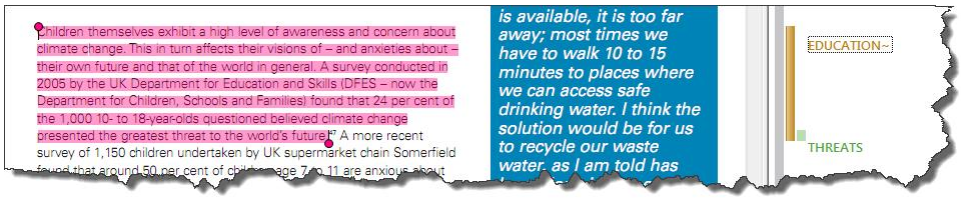

children themselves exhibit a high level of awareness and concern about climate change. This in turn affects their visions of – and anxieties about – their own future and that of the world in general. A survey conducted in 2005 by the UK Department for Education and Skills (DFES – now the Department for Children, Schools and Families) found that 24 per cent of the 1,000 10- to 18-year-olds questioned believed climate change presented the greatest threat to the world's future.[1] A more recent survey of 1,150 children undertaken by UK supermarket chain Somerfield
is available, it is too far away; most times we have to walk 10 to 15 minutes to places where we can access safe drinking water. I think the solution would be for us to recycle our waste water. as I am told has
EDUCATION
THREATS

Figure 156: Coding a text segment in a PDF primary document

Coding Embedded Images

Select a rectangular area of your choice and use the handle at each corner to scale to the appropriate size.

found that around 50 per cent of children age 7 to 11 are anxious about global warming and "often lose sleep" over it.
water, as I am told has been done in some countries of the world."
Rasheeda, age 13, Nigeria
"My community was affected by drought which caused our crops to die and there is no more food security. People died, our cattle died and the land became a desert."
Kamdoun, age 11, Cameroon
coded embedded image
emotions_pity
EV_drought
evts_neg_death
EDUCATION~

Figure 157: Coding an embedded image within a PDF document

Coding Columns Of Text

As usual, just highlight a section of text within a column:

Empowering children to act
Children themselves exhibit a high level of awareness and concern about climate change. This in turn affects their visions of – and anxieties about – their own future and that of the world in general. A survey conducted in 2005 by the UK Department for Education and Skills (DFES – now the Department for Children, Schools and Families) found that 24 per cent of the 1,000 10- to 18-year-olds questioned believed climate change presented the greatest threat to the world's future." A more recent survey of 1,150 children undertaken by UK supermarket chain Somerfield found that around 50 per cent of children age 7 to 11 are anxious about global warming and "often lose sleep" over it."
"We here in our community are suffering from a lack of drinking water. Where safe water is available, it is too far away; most times we have to walk 10 to 15 minutes to places where we can access safe drinking water. I think the solution would be for us to recycle our waste water, as I am told has been done in some countries of the world."
WATER
EDUCATION~
THREATS
emotions_pity

Figure 158: Coding text within a column of a PDF document

Coding Image Documents

Load an image document and select a rectangular area. Proceed to code it as has been described for text segments.

Load an image document (e.g. P8 or P9), select a rectangular area, right-click inside the rectangle, and select **Coding / Enter Code Names (s)** from the context menu. Enter a code name.

Figure 159: Coded image segment

To write a comment, right-click on the rectangle and select the option **Edit Comment**. An editor opens.

Write something about your personal association with the image. Press **Ctrl+S** or click on the check-mark to save the comment. Close the editor.

1 This is not a source of happiness for everyone, but some might be intrigued by the "free"
source of happiness
quotation comment

Figure 160: Writing a comment for an image quotation

The quotation number and comment bar are optional display features. They can be turned and off via the context menu.

The look of the quotation bar in the margin area changes if a quotation has been commented. This applies to all media types.

Coding Audio And Video Documents

To code a video segment, move your mouse pointer on top of the audio wave and mark a section by clicking on the left mouse button where you want it to start. Then drag the cursor to the end position.

Figure 161: Selecting a video segment

Check your selecting by clicking on the play button.

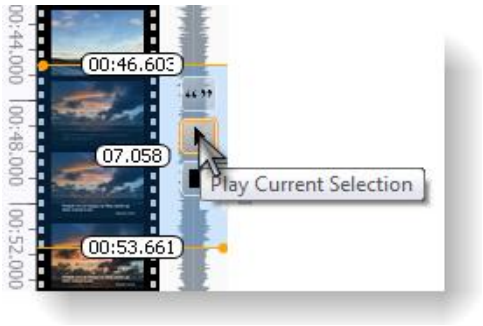


Figure 162: Playing the current video selection

Right-click inside the selection and select **Coding / Enter Code Name(s)**), or use the coding buttons from the tool bar.

For further detail on how to work with audio and quotations, see "Creating and Working with Multimedia Quotations."

Describing Multimedia Quotations To Improve Output

The name of an audio or video quotation is its data file name. If you want to add further information, you have two options: renaming the quotations and adding a comment.

In the process of creating video quotations, rename them so they can serve as titles for your video segments. To do so, right click on the quotation name in the Quotation Manager and select the **Rename** option.

If thirty characters are not enough for quotation names, you can extend the number:

From the main menu, select **Tools / Preferences / General Preferences / General.** At the bottom right, you will find the option: **List name size for quotes.**

Increase it to the desired number of characters; 80 characters are probably enough for short titles.

This allows you to create a meaningful text output of coded audio and video segments. To create such an output, select a code in the Code Manager.

Select the option **Output/ Quotation List for selected Code(s)**.

The output will show an overview of all the titles you have created for your video (or audio) segments. Plus, it provides the position within the audio or video file.

Making Use Of Quotation Comments

In addition to using quotation names for titles, you can add a description for each video quotation in the comment field. When you output quotations and there is at least one comment, ATLAS.ti asks you whether comments should be included in the output. As above, you can use the Quotation List output option from the **Codes / Output** menu.

Coding Google Earth Documents

Coding Google Earth quotations is similar to coding audio or video quotations.

Open the Quotation Manager.

To make it a bit easier to select a quotation, set a filter for the currently loaded Google Earth document: **Quotations / Filter / Selected PD**.

Open the Code Manager and drag and drop a code from the Code Manager onto the quotation in the Quotation Manager (or vice versa). You can also right click on the quotation in the Quotation Manager and select other coding options from the context menu.

When applying a code, the quotation count behind the code name increases by one. This is all you can see, as there is no margin area for Google Earth documents.

Reviewing Google Earth Quotations

You can review video quotations via the Quotation Manager, or by double clicking on a code that contains GE quotations in the Code Manager, or via the Places pane in the GE editor window.

Unlinking Codes

Unlinking a code from a GE quotation currently only works via a network view.

Select a GE quotation in the Quotation Manager and click on the Network View button in the tool bar, or right click and select Open Network View

Proceed with unlinking as explained in the chapter on the Network View function (see below).

Describing GE Quotations To Improve Outputs

Proceed as explained for audio- and video quotations (see "Describing Multimedia quotations to improve output").

More Coding-Related Functions

This section describes some additional coding-related "house-keeping" functions, such as creating free codes, importing lists of codes, and renaming and removing codes.

Free Codes

You can create codes that have not (yet) been used for coding or creating networks. Such codes are called "free" codes.

Why Create Free Codes?

- To prepare a stock of predefined codes in the framework of a given theory. This is especially useful in the context of team work when creating a base project.
- To code in a "top-down" (or deductive) way with all necessary concepts already at hand. This complements the "bottom-up" (or inductive) *open coding* stage in which concepts emerge from the data.
- To create codes that come to mind during normal coding work and that cannot be applied to the current segment but will be useful later.

Creating A Free Code

From the main menu choose **Codes / Enter Code Name(s)** or click the Create Code button in the Code Manager.

A prompter opens as in Open Coding. Enter one or more code names and click **OK**.

Such a free code shows the name suffix "{0-0}": no quotations, no linked codes.

Importing Codes

Creating Free Codes Via The Batch Method

To create a large number of free codes, this works best using the Memo Manager.

- Open the Memo Manager (**Memos / Memo Manager**)
- From the Memo Manager's menu, select **Memos / Create Free Memo**.
- As title enter "code list"
- Add your list of code words, one per line.
- Save the memo (**Memo / Save** or **Ctrl+S**) and close it.
- Highlight the memo and select the option **Miscellaneous / Create Codes from Selected Memo**.

Transferring Codes From Other Projects

If you want to import an already existing list of codes from another HU (that might serve as a repository for codes), use the XML Export/Import function for codes (see "Exporting and Importing Codes in XML"). This option has the advantage that already existing code definitions (i. e., code comments and colors) are transferred as well. If only a subset of codes is to be transferred from one project to another, set a code filter in the exporting HU.

How to transfer codes:

- Select **Codes / Import/Export / Export Codes (XML).**
- Select the option **Send Output to: File**.
- A file dialog window opens. Select a folder, enter a file name and save the file.
- Open a HU into which the codes will be imported.
- For this HU, select **Codes / Import/Export / Import Codes (XML).**
- A file dialog window opens. Select the XML file that you just exported and click **Open**.
- The code list is imported. Check the Code Manager to see whether the procedure was completed successfully and according to your expectations.

Avoiding Name Clashes When Importing Code Lists

If a code with the same name already exists in the HU, the imported code name is prefixed with three exclamation marks. Another attempt to load a code with a conflicting name will be ignored.

Note to ATLAS.ti 4.x users: The old Import Codes function still exists. In case you have some previously created code lists saved as *.cod files that you wish to import, select : **Codes / Import/Export / Import Code List.** If you want to generate this format, create a simple text file and change the .txt file extension to .cod.

Renaming And Deleting A Code

Renaming or deleting a code has global effects.

Renaming and deleting codes are procedures that seem trivial, but understanding the "scope" of these operations can be a problem for new users. For both operations you must understand, that there is only ONE code object, e. g., "Happiness" in a given HU, even if you *applied* (associated with quotations, other codes, etc.) this code many times. With the margin area switched on, you may see the code appear many times while scrolling through your document. In fact you are seeing "links" between a quotation represented by a bar and the code, represented by its name, icon, etc.

Renaming or removing a code in the margin besides a text on real paper using an eraser and a pencil affects only one specific occurrence of a code; all other occurrences of the same code are untouched. The effect of the operation is local.

With ATLAS.ti you can do the same. However, you can do additional things that are not possible using traditional paper and pencil techniques.

By renaming or removing a code from an HU, you are affecting every occurrence of the code throughout the entire HU. The effect is *global*. Renaming the code will instantly change all the code "links" in the margin to reflect the new name. Deleting it will remove all occurrences in the margin (and from all other contexts in which it was engaged, like network views, families, etc.).

To Rename A Code

- Select a code in a Network View or in one of the following places: the code drop-down list, the Code Manager, the HU Explorer or the Code Forest.
- When selecting a code from a list, you can use the **Codes / Rename** function from the main menu. The Rename option is also available from the context menu.
- Enter the new name and click **OK**.

Renaming or replacing?

Another method to rename a code is to use **In-Place-Editing**. This option is available in the Code Manager, the HU Explorer, and the margin area. Renaming a code in-place in the margin area has two different effects. The code can be renamed globally – affecting all occurrences - or replaced by another code locally. This preference can be set via the Margin tab of General Preferences dialog. (**Tools / Preferences / General Preferences, Tab: Margin / In-Place-Action**).

The default option is "local replace". If you leave it this way, you can use the rename option of the context menu, e.g. in the margin area, to rename a code globally. If you want to rename a code locally, use the in-place-action.

Deleting Codes

Deleting a code removes the code from the entire HU. All references that involve this code are removed. It also disappears from Network Views and families that contained this code.

If you only want to remove a code from a specific quotation, you should "unlink" the code instead (see below).

To Delete A Code

- Select a code in the Code Manager, a Network View, the HU Explorer or the Code Forest.
- In the Code Manager, HU Explorer or Code Forest use the **Delete** function from the menu. In a Network View, right click on a code.

If the code has been used (e. g., is assigned to quotations, connected to other codes, part of a super code, etc.), you are asked for confirmation before the deletion process continues.

Furthermore, if quotations coded with this code are not used in any other context, you are asked whether these quotations should be removed as well.

There is no "undo" function to get deleted codes back! If you are unsure about the effects of an operation, save and/or make a backup copy of your Hermeneutic Unit first!

Unlinking Codes

This option is the reverse function of coding. It removes the links between codes and quotations. Unlike the delete function, neither codes nor quotations are removed; only the association between the code and the quotation is removed.

Two methods are described in the following sections.

To Unlink Several Codes From A Quotation

This method is used to remove a number of codes linked to a specific quotation.

- Open the context menu of the desired quotation.
- Choose **Unlink Codes** from the context menu.
- From the list of all codes connected to this quotation displayed in a pop-up window select the codes to be unlinked and click **OK**.

In the margin area you can see the immediate effect of this operation: the unlinked codes disappear.

To Unlink A Single Code From A Quotation

This method is a very direct manipulation of the association between a code and a specific quotation using the interactive margin areas.

- Switch on the margin area display.
- Right-click a code in the margin area.
- Choose **Unlink** from the context menu. The code disappears from the margin area. It does not disappear from other places in the margin where it has been used.

Remember, the **Delete** option removes the code for good, including all associations with quotations, codes, memos, etc. - If you want to remove a code from a Network View, but do not want to actually delete it, select the option **Remove from View** from the context menu.

Merging Codes

When developing a coding scheme, it may happen in the course of the analysis that two or more codes essentially mean the same thing. One cause could be the import of code lists with different names but similar meanings.

Clean up synonymous codes by merging them.

ATLAS.ti offers a procedure to merge synonymous codes into one resulting "target" code. This target code replaces the merged codes and "inherits" all of their references, i. e., quotations, links to other codes or memos, and their comments.

There are two ways to merge codes: a list-based method, and one that works from within the Network Editor.

MERGING CODES USING THE LIST METHOD

Save the HU before merging codes.

- In the Code Manager select the "target" code into which a number of other codes are to be merged.
- Right-click and select **Merge Codes** from the context menu (or select **Codes / Merge Codes** from the menu).
- In the multiple choice window, select the codes to be merged into the selected code.

If the code had a comment already, then information about when and what was merged into the target code is entered into the comment field of the target code including the comment(s) of the merged code(s).

MERGING CODES IN A NETWORK VIEW

Here the procedure works the other way around. You first select the codes that you want to merge into another code, and then you select the target code.

- Open an existing Network View.

Select the code nodes that you want to merge (hold down the Ctrl key to select multiple code nodes)

From the network view's menu, select Nodes/Merge Codes. Some red lines appear starting at the selected code node, ending at your mouse pointer.

Mouse the mouse pointer on top of the target code node and left click. This starts the merging procedure. The codes you selected first disappear and their quotations are added to the target code.

The codes merged into the resulting target node are deleted from the Hermeneutic Unit's code database. Since merging cannot be reversed easily, and since this procedure might affect many aspects, save the Hermeneutic Unit before doing the merge. If you are not satisfied with the merge result, you can reload the previously saved HU. Another more laborious way to revert to the previous state is to split the target code.

Suggestions For Structuring The List Of Codes

A frequent question is how to add a structure to the otherwise flat code list in ATLAS.ti.

Adding Structure Via The Order In The Code Manager

The easiest way to work with higher and lower order codes is to structure your codes alphabetically in the Code Manager, e. g., according to the basic pattern below:

```
category A_sub 1
category A_sub 2
category A_sub 3
category B_sub 1
category B_sub 2
category B_sub 3
```

etc.

As a means to visualize the beginning of a category, you can enter a free code that is not linked to any quotation, as shown below. Such a main category code might initially be empty, but may proof to be quite handy during further coding work. You may come across some data that fits the category but there is no fitting subcode yet, or you are unsure where to put it. Then you can use the main category code to collect these instances. Once a number of instances are collected, you can review them and think some more about them. By reading through or viewing/listening to a couple of examples it becomes often easier to decide how to code it. You may decide to create a new subcode or decide that an existing subcode fits after all.

```
CATEGORY A
category A_sub 1
category A_sub 2
category A_sub 3
CATEGORY B
category B_sub 1
category B_sub 2
category B_sub 3
```

A further possibility is to sort codes by numbers (or numbers and letters):

```
1 CATEGORY A
11_A_sub 1
12_A_sub 2
13_A_sub 3
2 CATEGORY B
21_B_sub 1
22_B_sub 2
23_B_sub 3
```

etc.

The sorting order is: (1) special characters (* + ' # - _ : . ; , etc.), (2) numbers, and (3) letters. Therefore, it is NOT a good idea to use prefixes like 1, 1.1. , 1.1.1 , 2, 2.1, 2.1.2 etc.. Such a numbering scheme will necessarily wreak havoc with your intended sorting order ("10" will be sorted before "2"). When using numerals , always use "01", "02", "03", or and so on for sorting to be on the safe side.

The Quick Tour project, stage II, shows a structured code list achieved by using alphabetically sorted prefixes. You can access this project in ATLAS.ti via the **HELP** menu.

def happiness: a feeling {2-1}
def happiness: a state of mind {2-1}
def happiness: fulfillment {11-2}
def happiness: is subjective {2-2}~
def happiness: long term view {6-1}~
EFFECTS PARENTING {0-0}~
effects parenting: (neg) less.... {21-2}~
effects parenting: (neg) more ... {12-1}~
effects parenting: career neg {3-1}~
effects parenting: career pos {1-1}~
effects parenting: improved social and emotional contacts {10-2}~
effects parenting: less focus on self {6-2}~
effects parenting: letting go {2-1}~
effects parenting: marital satisfaction (-) {18-1}~
effects parenting: personal growth {13-2}
EVAL: {0-0}~
Eval: ambivalent {4-2}
Eval: neg {8-2}
Eval: pos {58-2}
EX: EXPLANATION {0-0}~
ex: attitude {9-1}
ex: narcistic culture {7-1}
ex: salient experiences {7-1}~
ex: self-delusion {16-1}~
ex: work-life balance {9-1}~
ex: wrong expectations {10-1}
GIVE {0-0}~
give: joy {28-2}~
give: purpose and meaning {10-2}~
give: special moments {9-1}~
HAPPINESS {0-2}
Happiness - Joy {6-0}~
Happiness: effect of wanting children {21-2}~
Happiness: is not the key {12-2}~
Happiness: unrelated to having kids {5-1}~
HARD WORK BUT... {3-1}~
hard work but: a worthwhile trade-off {6-0}
hard work but: fullfillment {6-2}~
hard work but: joy {8-2}
hard work but: rewarding {10-2}
IC: IMAGE COMPOSITION {0-0}~
IC: content_animal {1-0}
IC: content_artifact {2-0}~
IC: content_atmosphere {2-0}~
IC: content_clouds in the sky {3-0}
IC: content_human being {1-0}~
IC: content_nature big picture {3-0}
IC: content_nature focussed view {6-0}
IC: content_open view to the horizon {3-0}~
IC: content_plant {3-0}
IC: content_water {6-0}
IC: FOCUS {0-0}~
IC: focus_centre {8-0}
IC: focus_left {6-0}
IC: focus_lower half {7-0}
IC: focus_moving {3-0}~
IC: focus_right {0-0}
IC: focus_upper half {0-0}
NHC {0-0}~
nhc: accepting choices {11-0}~

Figure 163: Example of a structured code list

All terms preceding a colon (:) indicate the main category name; the terms following the underscore or colon constitute subcodes. Other projects may require additional sublevels. But don't overdo it!

As main category code and subcode names may contain more than one word, an empty space is not sufficient to separate the two levels of coding. Therefore it is best to use one the of special characters that you find on your keyboard to visually separate levels of coding.

Retrieving Coded Quotations

There are different ways to retrieve coded segments: Quotations for a single code or a combination of codes, quotations displayed in the context of their primary documents, or quotations sent to a report. The simplest "retrieval" is by activating a code in the Code Manager with a double-click.

Activating A Quotation For A Code

Quotations are activated differently in context, depending on the media type.

A straightforward method is to display quotations in context: textual and graphical quotations will be selected in the document when activated. A multimedia quotation begins to play when selected.

When you select a code in the code drop-down list or double-click an item in the Code Manager, the following happens--depending on how many quotations are coded to that code:

IF THERE IS ONLY ONE QUOTATION

If there is only one quotation for the selected code, it will be activated immediately.

IF THERE ARE MORE QUOTATIONS

Use the **next** and **previous** button in the Code Manager to browse through all quotations for a selected code.

If more than one quotation is associated with the code, they are offered in a pop-up list. Selecting one of the quotations activates and displays it in context.

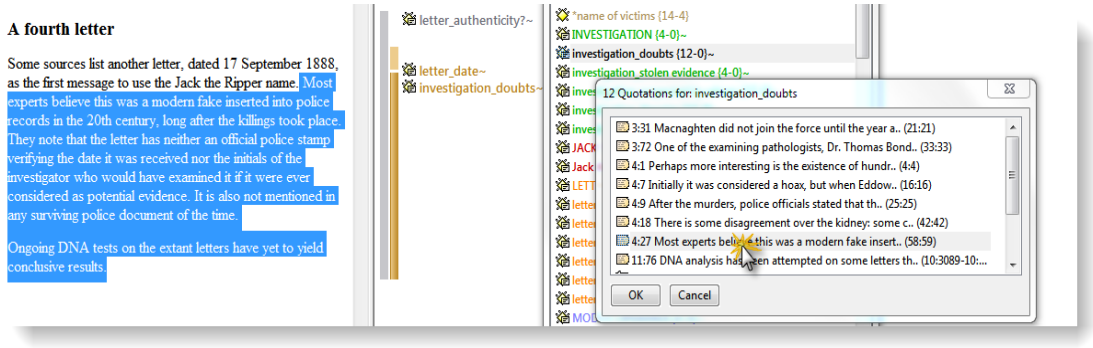

A fourth letter
Some sources list another letter, dated 17 September 1888, as the first message to use the Jack the Ripper name. Most experts believe this was a modern fake inserted into police records in the 20th century, long after the killings took place. They note that the letter has neither an official police stamp verifying the date it was received nor the initials of the investigator who would have examined it if it were ever considered as potential evidence. It is also not mentioned in any surviving police document of the time.
Ongoing DNA tests on the extant letters have yet to yield conclusive results.
letter_authenticity?~
letter_date~
investigation_doubts~
*name of victims (14-4)
INVESTIGATION (4-0)~
investigation_doubts (12-0)~
investigation_stolen evidence (4-0)~
12 Quotations for: investigation_doubts
3:31 Macnaghten did not join the force until the year a.. (21:21)
3:72 One of the examining pathologists, Dr. Thomas Bond.. (33:33)
4:1 Perhaps more interesting is the existence of hundr.. (4:4)
4:7 Initially it was considered a hoax, but when Eddow.. (16:16)
4:9 After the murders, police officials stated that th.. (25:25)
4:18 There is some disagreement over the kidney: some c.. (42:42)
4:27 Most experts bel
11:76 DNA analysis ha
en attempted on some letters th.. (10:3089-10:...
OK
Cancel

Figure 164: Simple retrieval

Create A Report For Coded Quotations

As an alternative to the contextual display of quotations, you can get different reports of the quotations for a selected code. Reports are displayed in a text editor and can be printed or saved.

To create a quotation report:

- Select a code, for instance in the Code Manager.
- From the main menu, select **Codes / Output / Quotations for selected Code.** When selecting a code in the Code Manager choose **Output / Quotations for selected Code.** Select the option **Quotation List** if you only want a list of the quotations' names. This report is useful for non-textual data where the quotations do not contain textual content.
- If a comment has been written for any of the quotations, you will be asked whether you also want to include the comments in the report.
- Next, you have the option to send the report to an editor, printer, save it to disk (option: File), or to save it and run the file in the standard RTF application - usually Word or Wordpad – (option: File & Run).

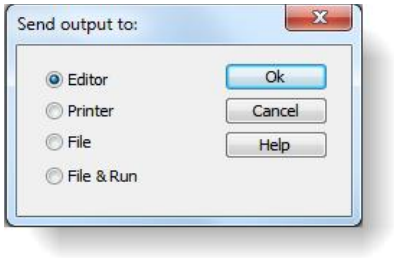


Figure 165: Output options

For more report options, check out the XML Explorer, more specifically the section "Working with Style Sheets."

Reports On Quotations For Code Combinations

Use the Query Tool for complex retrievals of quotations.

To retrieve quotations or generate reports for combinations of codes use the Query Tool. For more information see "Query Tool."

Other Places To Activate Quotations

Quotations for a code can be activated from the margin area and any browser displaying codes:

The **Margin Area** displays codes (and other objects) associated with quotations. Clicking on a code in the margin area selects the associated quotation in the primary document pane.

By activating objects in the **HU Explorer** (see "The HU Explorer") quotations are displayed in context similar to the object manager.

The **Network Editor** (see "The Network Editor ") also offers access to associated quotations via a node's context menu.

In the **Query Tool** (see below) you can activate quotations in the result pane of the query tool window. Similarly you can activate quotations in the **Co-occurence Tools** that result from a co-occurence query (see below).

Text Search & Auto Coding

The Text Search Tool is used to search within primary texts for the occurrence of specific text strings that match a designated string or pattern.

The Text Search Tool offers three distinct methods entitled **Standard Search**, **Category Search** and **GREP Search** to scan primary texts for specified text patterns. The functionality of the Text Search Tool is also fully integrated into the Auto-Coding Tool (see "The Auto-Coding Tool").

The search mode is automatically determined by the kind of search string entered. Regular Expression search (GREP), however, must be explicitly selected. If you need to know what GREP stands for and what GREP searches are, a detailed explanation is provided at "GREP Search."

The Text Search Tool

To Open The Text Search Tool

Click this button to activate text search
Short-cut: Ctrl-F

- Load a primary text.

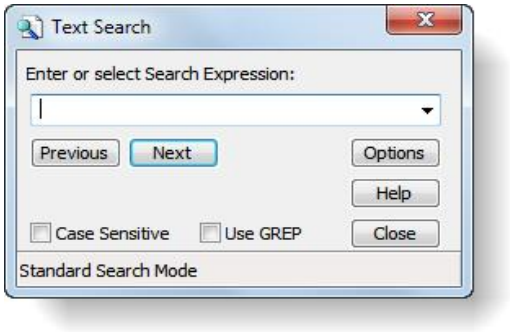


Figure 166: Text search tool

- Either click the *text search* button in the PD toolbar, select **Edit / Search** from the main menu, or use the key combination **Ctrl-F.**

If the document is in Edit mode, Ctrl-F opens a Windows standard text search. Use the menu option or the search button instead.

Initially, the status bar displays the current search mode (in the figure above: Standard Search Mode). During a search activity, this is the place where you should look for warnings and messages.

Not all options are available for every type of search. For instance, backward and case sensitive searches are not available for Category Search (see below).

A text search always starts from the current position of the text cursor in the currently selected primary text. When the end of this document is reached, you are asked if the search should continue through the rest of the primary text documents.

Standard Search Mode

Use the standard search mode when you want to find exact, specified strings of characters. Word boundaries are not recognized in this mode. Hence, searching for "the" would also find instances like "bo***ther,*" "***the***re," and "***the***ater." Searches that recognize word boundaries are available with the Category Search or by using appropriate GREP patterns.

TO START A STANDARD SEARCH

- Open the Text Search tool.
- Enter a string into the entry field. The search string should contain the special "pipe" character "|" as this initiates the Category Search.
- Uncheck GREP mode.
- Set **Case Sensitive** as needed.
- Start the search by clicking the **Next** or **Previous** button.

Two search options are available in standard search mode to control the search.

CASE SENSITIVE

Check the **Case Sensitive** box if you want characters to match the searched text exactly. If **Case Sensitive** is selected, you will not find "Love" when you search for "love".

GREP MODE

Checking the GREP box enables GREP mode. If unchecked, the Search Tool is in "standard" mode. You may use the standard wildcard * character even without GREP. More discussion on GREP searches is provided at "GREP Search."

Category Search

The Category Search method combines two powerful techniques.

Parallel search is a sophisticated method that handles textual variations. You may specify a number of *patterns* that scan the text simultaneously. Secondly, search expressions ("search swarms") can be stored as a search category and later reused. Besides being short and handy, a further advantage of categories is that their contents can be modified later without changing a single character in other expressions using this category.

Categories are reusable, named search swarms.

Categories allow abstraction from the search string itself and permit easy re-use of complex expressions in later searches. With the simultaneous use of wildcards, a search request using a search swarm might look as follows:

```
*caus*|why|*efore|since
```

The individual elements of the search swarm are delimited by the vertical bar character "|". The bar can be read as a (Boolean) "OR." The search defined

above yields text passages including any of the following strings: "because," "causes," "causation," "before," and "therefore," "why," and "since."

DEFINING CATEGORIES

Search swarms that have proven useful can be assigned names (search categories) in ATLAS.ti to facilitate re-use. For example,

```
CAUSE := *caus* | why | *efore | since
```

defines CAUSE as a placeholder for the original search swarm.

Therefore, instead of retyping lengthy search strings, the user may later simply type the search category "$CAUSE" into the entry field. The dollar sign is a special character that indicates that the *content* of the CAUSE category is to be used for the search and not the string "CAUSE" itself. Therefore do not use the $ sign to start a category name.

Categories can be mixed with ordinary strings to build complex search requests such as: `until|$CAUSE|when`

Do not mistake search categories for codes. Search categories are shortcuts for complex search procedures, while codes are concepts representing some level of interpretation. However, when using search categories extensively and building hierarchies of search categories, such a "para-taxonomy" might stimulate the construction of a matching network of codes.

Create hierarchies of search swarms by embedding existing categories.

HIERARCHIES OF SEARCH CATEGORIES

As categories may be elements of other categories, recursive search trees of arbitrary depth may be defined.

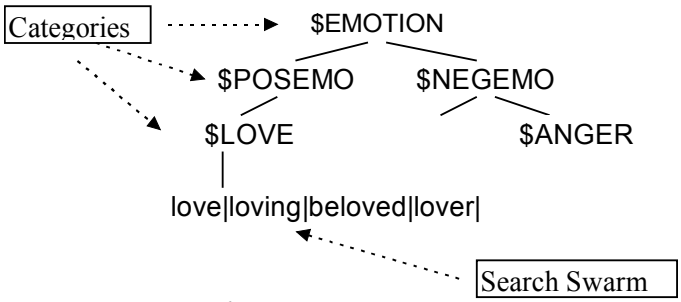


Figure 167: Hierarchy of search categories

The definition for the taxonomy above is as follows:

```
EMOTION := $POSEMO|$NEGEMO
POSEMO := $LOVE|etc.
NEGEMO := $ANGER
LOVE = love|loving|beloved|lover
```

Such category structures are efficient tools to exploit the literal properties of the textual materials you use in your research. Of course, this tool does not find relevant information beyond the characters specified in the search.

HOW TO USE CATEGORY SEARCH

- Open the Text Search tool.

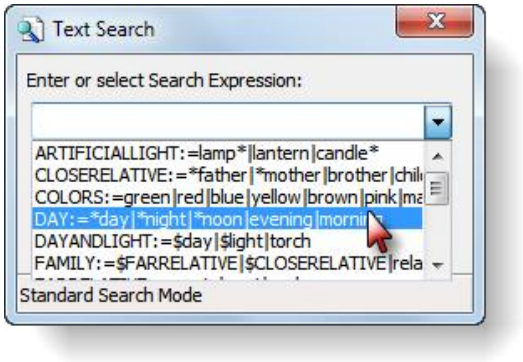


Figure 168: Selecting an existing search category in the Text Search tool

- Enter a new search swarm or select an existing category from the library of search swarms by clicking on the drop down button at the right of the entry field.
- Click **Next**.

List of example search categories in the standard search library.

When using Category Search, some of the controls become disabled. Category Search cannot be combined with GREP mode, can never be case sensitive, and the Previous button cannot be used.

TO DEFINE A NEW CATEGORY

- Open the Text Search tool.
- Enter a new definition into the entry field using the following syntax:
- **CATEGORY NAME:=** `<string or $category>|<string or $category>| etc.`

When *defining* a new category do not prefix its name with a "$".

As soon as you press the **Next** button, a new category is created and a search for the first occurrence starts. This category is now available to you for the current work session. If the new category should be available in the future, you need to save it to the search library.

- Click on the Options button and select **Save Categories**.
- In case you do not want to create multiple search libraries, add your new category to the existing search library *srchbib.skt* and save it at the suggested location in the ATLASti folder.

MANAGING SEARCH CATEGORIES

Create search libraries for different languages, different topics, different projects, etc.

Search categories are managed in search libraries.

On startup, ATLAS.ti loads a default library of search categories named *srchbib.skt*. You can update this library by adding new categories and removing or modifying existing categories. It is also possible to create completely new search libraries that better fit your requirements (different languages, domains, etc.).

To manage categories, three options are available:

Click the **Options** button in the Text Search window for this menu:

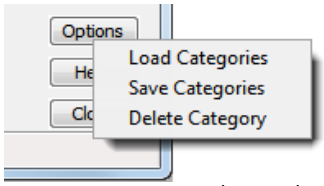


Figure 169: Accessing the search library in the text search tool

Load Categories opens a file dialog window showing existing search library files like *searchbib.skt* or *srchbib.skt*. If you select a library in the file dialog window, the categories from that library are added to the currently loaded categories.

Save Categories stores the currently loaded and newly created search categories in the default library file (*srchbib.skt*) or a new file. If you choose a new name, be sure to give the file the extension SKT, as in "*dutch.skt*".

To clear the internal database of search categories before loading new ones, use the option **Delete Category.** This opens a multiple selection list window. Choose one or more categories to be removed from the internal database of search categories. You can use the standard Windows techniques for multiple selections using the **Ctrl**, **Alt**, or **Shift** keys in combination with the left mouse button.

GREP Search

GREP searches are very flexible.

Regular Expressions efficiently exploit the syntactical properties of the technical device called "text."

GREP is a well-known search tool in the UNIX world. The original GREP tool printed each line containing the search pattern, hence the acronym GREP ("*Globally look for Regular Expression and Print*).

In ATLAS.ti, the results of a GREP search are not printed line-by-line; rather, the text matching the search pattern is highlighted on the screen.

The core of a GREP search is the inclusion of special characters in the search string that control the matching process. GREP finds instances in your data that match certain patterns.

The ATLAS.ti GREP search offers a subset of the Regular Expression language used in sophisticated text search systems. It is available in all operations using text matches: The main window, in comments, and memos, text search, the Object Crawler, and in the Auto Coding tool.

Supported GREP Expressions

ATLAS.ti' uses the engine created by Vassili Bykov to process GREP based text search queries.

For detailed information about regular expressions see
http://en.wikipedia.org/wiki/Regular_expression

GREP Expression	Description
^	Matches an empty string at the beginning of a line.
$	Matches an empty string at the end of a line.
.	Matches any character except a new line.
+	Matches at least one occurrence of the preceding expression or character.
*	Matches the preceding element zero or more times. For example, `ab*c` matches "ac", "abc", "abbbc", etc.
?	Matches the preceding element zero or one time. For example, `ba?` matches "b" or "ba". []
[]	Matches a range or set of characters: `[a-z]` or `[0-9]` or `[aeiou]`. For example: `[0-9]` finds all numeric characters, while `[^0-9]` finds all non-numeric character
\b	Matches an empty string at a word boundary
\B	Matches an empty string not a word boundary
\<	Matches an empty string at the beginning of a word
\>	Matches an empty string at the end of a word
\	The escape character disables the special GREP functionality of the following character. For example: `\[` matches an opening bracket.
|	OR. Enclose ORed expressions with parentheses if OR should be restricted to certain sequences of characters or expressions

Example

The expression `man|woman` matches "man" and "woman".

You could also use `(|wo)man` to the same effect. `H(a|e)llo` matches "Hello" and "Hallo". `H(a|e)+llo` matches “Haaaaallo” as well as “Heeeeeaaaaeaeaeaeaello.”

And how about `the (angry|lazy|stupid) (man|woman) (walk|runn|play|fight)ing with the gr(a|e)y dog` – get the idea?

GREP Expression	Description
\d	Matches any digit (equivalent to [0-9])
\D	Matches anything but a digit
\s	Matches a white-space character
\S	Matches anything but a white-space character
\w	Matches any word constituent character

\W	any character but a word constituent

These escapes are also allowed in character classes: [\w+-] means "any character that is either a word constituent, or a plus, or a minus."

Examples

\<\w+\> matches any whole word

\<[[:alpha:]]+\> matches whole words containing only alphanumeric characters.

Character classes can also include the following elements:

[:alnum:]	Any alphanumeric, i.e., a word constituent, character
[:alpha:]	Any alphabetic character
[:cntrl:]	Any control character. In this version, it means any character whose ASCII code is < 32.
[:digit:]	Any decimal digit
[:graph:]	Any graphical character. In this version, this mean any character with the code >= 32.
[:lower:]	Any lowercase character
[:punct:]	any punctuation character
[:space:]	Any white-space character
[:upper:]	Any uppercase character
[:xdigit:]	Any hexadecimal character

Note that these elements are components of the character classes, i. e. they have to be enclosed in an extra set of square brackets to form a valid regular expression. A non-empty string of digits or arbitrary length would be represented as [[:digit:]]+

Examples Of GREP Searches

In the following, a few search examples are presented showing the matching GREP expression in the column on the right.

Examples	GREP expression
Find text (of arbitrary length) enclosed within brackets. Note that the brackets have to be escaped with "\" as they are themselves control characters	\[.*\]
Find all years between 2001 and 2004:	200[1-4]
Find all numbers with 2 digits at the end of a line or paragraph:	\d\d$
Find all "Meyer"s - spelled in four different ways:	M[ae][iy]er

Find all lines (paragraphs) starting with one arbitrary letter followed by a colon. If you search for a "d" following the colon you will have to use the Escape character: ^.\:d Otherwise, the letter "d" would be interpreted as a digit.	`^.[:]`

To Start A GREP Search

- Open the Text Search tool.
- Enter a search pattern (Figure 327shows an example).
- Check the **Use GREP** box.

The search expression entered in the text search window to the right finds all 3-digit numbers with the last digit being a 7, 8, or 9. This can be a useful search to find certain social security numbers or other personal identification numbers.

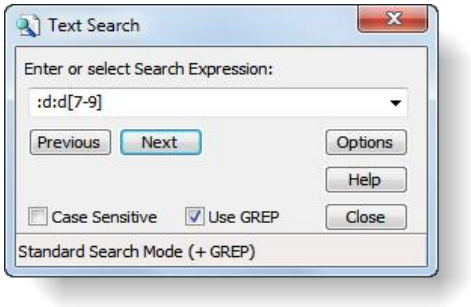


Figure 170: Search expression dialog

- Click on the **Previous** or **Next** button.

The Case Sensitive option may be used in combination with a GREP search.

The Auto-Coding Tool

The Auto-Coding tool finds text passages, selects a specified amount of text (e. g., the exact match, or spread to the surrounding word, sentence, or paragraph), and then codes the passages with a previously selected code.

Auto-coding is useful when coding structural information like speaker turns in group interviews, or other sections that can easily be identified by a text search.

Auto-coding allows you to quickly collect ideas that belong to a certain concept on the basis of words or patterns found in the text.

Concepts

The Auto-Coding Dialog

Auto-Coding = Text Search + Automatic Segmentation + Coding

The Auto-Coding tool combines the Text Search tool with an automatic segmentation and code assignment mechanism.

To open the Auto-Coding Dialog, select **Codes / Coding / ~Auto Coding** from the main menu.

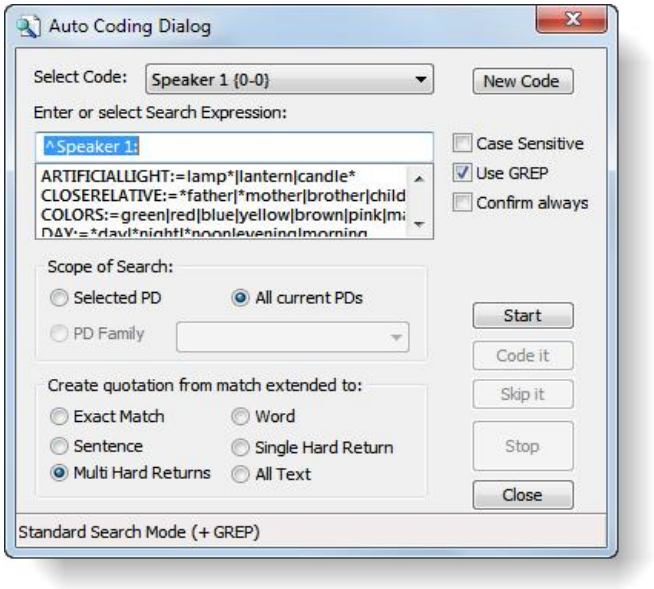


Figure 171: Auto Coding Dialog window

Note the **New Code** button, which allows you to create codes on the fly for the auto-coding procedure.

The New Code button allows you to create codes on the fly.

Based on the GREP search expression shown in the above figure, all occurrences of string Speaker 1: located at the beginning of a paragraph in all textual PDs are found. Next, the whole speaker unit (which could contain one ore more paragraphs) will be selected before a quotation is created and the code "Speaker 1" will be assigned.

The option **Confirm always** is deactivated as the search is unambiguous and is likely to yield the desired results.

Search Expression

The top part of the Auto-Coding Dialog window resembles the Text Search tool (see "The Text Search Tool"). Search expressions can be entered or search categories can be selected. The search mode can also be set in a similar way as for the Text Search tool.

Scope Of Search

Scope of Search can be all textual PDs, the selected PD only, or it may be restricted to a set of texts from a PD family. When you choose "All current PDs," the search starts at the beginning of the currently selected primary text.

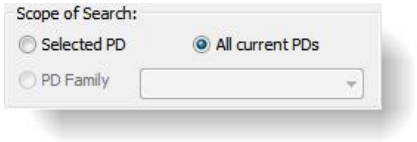


Figure 172: Selecting the scope of search for auto coding

If "Selected PD" is chosen, the auto-coding process starts at the current position of the text cursor.

Segment Size

When a matched string is found, the size of the segment to be coded can be specified as follows:

- The **Exact Match** only
- The **Word** surrounding the matched string
- The **Sentence** surrounding the matched string
- The matched string expanded to paragraph boundaries (**Single Hard Return**).
- The matched string expanded to one or more paragraphs up to the next blank lines (**Multiple Hard Returns**). This option is useful if you have information that should be regarded as one unit, but is separated in multiple paragraphs.
- **All Text** of the PD containing a match.

When transcribing, enter a blank line between speaker turns if you are going to to use the auto-coding tool for coding speaker units.

Test Your Search Expression

Test search patterns with the Text Search tool first.

The Auto-Coding tool creates a new quotation for every matched text passage that is not yet a quotation. A potentially large number of inadequate quotations could be produced by an imprecise search.

For this reason, you should always test a search pattern by using the Text Search tool first (see "The Text Search Tool") or select the Confirm option and click Skip. This test will give an indication if the final search will yield meaningful results. The advantage of testing with the Text Search tool is that no quotations are created.

Another option is to auto code into a new code. If you later find out that the search did not yield good results, you can delete the code and all created quotations with two mouse clicks and try a different search.

How To Auto-Code

Auto-coding can be fully automatic or semi-automatic. The sections below will clarify the difference and will show the advantages of each method.

Fully Automatic Coding

- Select the PD you want to code using the auto-coding procedure. If you only want to auto-code the current text, load the PD in question. If you want to auto-code all texts, load the first PD and position the cursor at the beginning of the document.
- To open the Auto-Coding tool, choose **Codes / Coding / ~ Auto Coding** from the main menu.
- If no code is selected, select a code from the drop-down list at the top of the Auto-Coding tool.
- Enter a new search string or choose an existing search category.
- Specify the search scope, e. g. "Selected PD"
- Specify the segment size.
- Start the process by clicking **START**.

Semi-Automatic Coding

As it is not always desirable to let the program decide whether or not to code a given text passage, you can control the process by checking "Confirm always." Specific confirmation from the user on each new code will then be requested.

An example for the usage of semi-automatic coding would be to code for the concept "distress." Indications that a person might be distressed could be words like nervousness, tension, unease, edginess, etc. In order to capture this, you would do the following:

- Create a code with the name Distress.
- Open the Auto-Coding tool.
- Select the appropriate code.
- In the search entry field define a new category by entering:
  `DISTRESS:= nervous|tens|uneas|edg|..` etc.

The OR operator in this example is marked in red for visibility only. The search term in ATLAS.ti does not show colors or formatting.

- Depending on your data set, select a suitable **scope** of search (current PD, all PDs, or a specific PD family).
- Select the **segment size** to be coded, e. g. sentence.
- Check **Confirm Always** and click on the **Start** button.
- Every time the program finds a piece of text that matches your search category, it stops the search and highlights the text it has found. You can then read the surrounding context and decide whether the text passage really has something to do with distress. If it does, click **Code it**, otherwise click **Skip it**. The program continues to search for the next match.

You can uncheck the **Confirm always** box at any time and let ATLAS.ti scan through the rest of your texts without prompting for further confirmation.

Brushing-up Results After Auto-Coding

Since no automatic search can guarantee 100% meaningful results, the quotations created and assigned to the selected code during auto-coding should be screened and modified if needed.

CHECKING AND MODIFYING QUOTATIONS

- Close the Auto-Coding tool.
- Open both the Code Manager and the Quotation Manager.
- Select the code you just used for auto-coding.
- In the Quotation Manager, set the quotation filter to "Selected Code".
- Click the Created column header to find all recently created quotations at the top of the list.
- Browse through the quotations assigned to this code by using the **Next** and **Previous** buttons in the Quotation Manager.
- Modify or delete misaligned or inappropriate quotations. See "Modifying Textual and PDF Quotations."

Preparing Documents Optimized For Auto-Coding

The following instructions are useful for preparing transcriptions of focus group sessions, questionnaires, or interviews. Such data usually contains different speakers' sections. The hints given here also apply for other documents that include sections you wish to identify for auto-coding.

It would be tedious to code speaker or section turns manually. Two things are needed: A good "marker" for which to search and, once the marker is found, a reliable identification of the unit (sentence, paragraph) to be coded.

Insert easily identifiable markup in the text to let the auto-coding pattern matcher do this for you. For proper markup, a little knowledge regarding the auto-coder's search procedure is helpful. In combination with a few formatting

rules, documents can be created that can readily support auto-coding quite a bit.

For the auto-coding tool to yield useful results, it is necessary to properly structure the source text using *unique identifiers*.

Simple examples are:

- *P:* or *<Peter>*for a respondent with the name Peter
- *07-01-11letter* for a letter written on the first of July 2011.

The identifier should be used exclusively to mark passages in the text that indeed relate to the person or object identified. The plain word *Peter* will likely also occur elsewhere in the text (for instance, when another person is referring to Peter). The markup "*P:*" or *<Peter>* however, is unlikely to occur elsewhere .

In order for the Auto-Coding tool to select a complete speaker section, a *section delimiter* is needed. As discussed above, a speaker or section turn will start with the speaker's identifier markup. The end of a section is best marked by an empty line. By doing this, you can still use single hard returns to segment a speaker section into paragraphs.

When auto-coding such a document, you would choose **Multi Hard Returns** for extending the matched text.

Using *<Peter>* as the search pattern would then yield a quotation including everything from *<Peter>* up to the empty line:

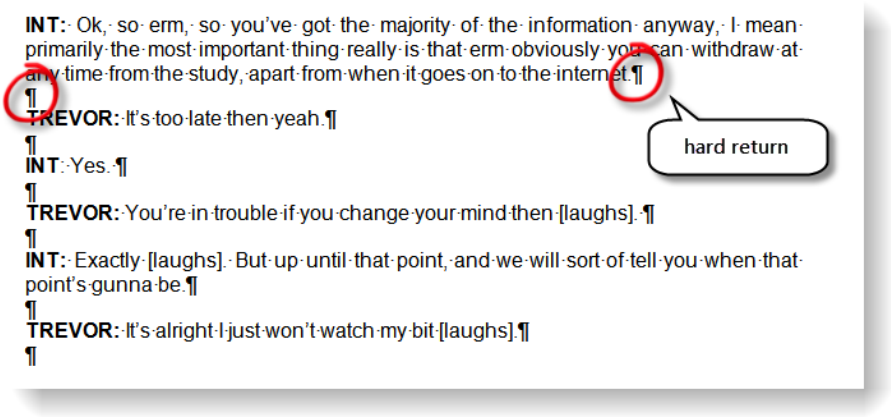

INT: Ok, so erm, so you've got the majority of the information anyway, I mean primarily the most important thing really is that erm obviously you can withdraw at any time from the study, apart from when it goes on to the internet.¶
¶
TREVOR: It's too late then yeah.¶
¶
INT: Yes.¶
¶
TREVOR: You're in trouble if you change your mind then [laughs].¶
¶
INT: Exactly [laughs]. But up until that point, and we will sort of tell you when that point's gunna be.¶
¶
TREVOR: It's alright I just won't watch my bit [laughs].¶
¶
hard return

Figure 173: Example transcript

Editing Primary Documents

PDs are often shared between different projects and/or users/team members. A single file can be in use by more than one project.

Linked documents cannot be edited in ATLAS.ti 7. If you want to edit documents, you need to add them to your projects as managed files (see "Adding Externally Linked Documents To A Library."

One of the core ideas of ATLAS.ti is that PDs are shared and part of an archive. As you already know, all quotations, codes, and memos are not actually part of PDs, but are "transparent layers" that are stored in the HU file. Because of this, editing is blocked by default when you view a PD in ATLAS.ti.

However, it may be necessary to edit the content of a PD. For instance, transcribed texts are often loaded with typos and other writing errors. Documents might not be complete and text may need to be added after they were assigned.

Click the pencil to enter edit mode.

Edit mode must be actively switched on for textual PDs. This section introduces available editing options and the issues to be considered when editing PDs.

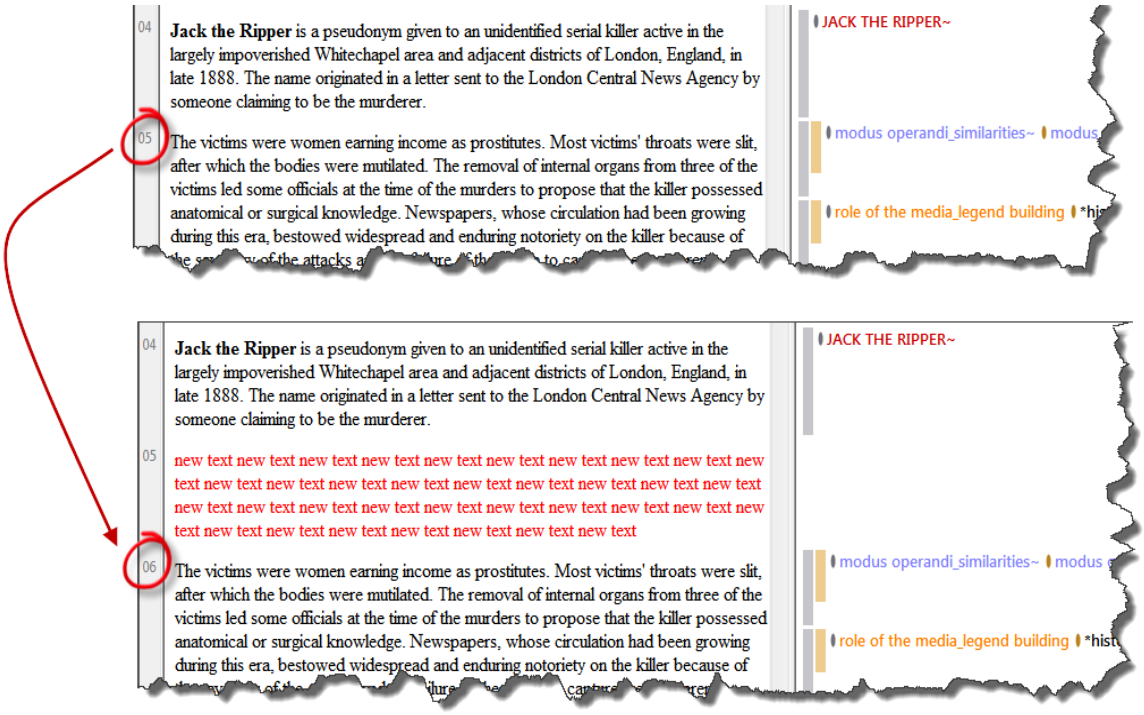
Two versions of a coded text are shown in the figure below: one version before and one version after an editing session. The added text is colored red.

When we refer to "editing a PD," we indeed mean editing the content, thus the data source file on the computer hard disk is modified by this procedure.

A new paragraph was added between paragraph 4 and 5 in the original document. As a consequence, all quotations that referenced paragraph 5 and beyond needed to be updated to take into account their new position. The quotation starting at paragraph 5 (before the editing procedure) and its associated code have shifted to paragraph 6.

A powerful change maintenance system records all changes during an edit session in order to inform other projects to update their quotations.

A word of caution is in order: Even though a number of safeguards are built into the software to prevent misaligned codes or other nuisances after an editing session, it is still a good idea to know how ATLAS.ti handles edited PDs. Therefore, the objective of this section is to inform you about the Dos and Don'ts of editing PDs.


04
Jack the Ripper is a pseudonym given to an unidentified serial killer active in the largely impoverished Whitechapel area and adjacent districts of London, England, in late 1888. The name originated in a letter sent to the London Central News Agency by someone claiming to be the murderer.
05
The victims were women earning income as prostitutes. Most victims' throats were slit, after which the bodies were mutilated. The removal of internal organs from three of the victims led some officials at the time of the murders to propose that the killer possessed anatomical or surgical knowledge. Newspapers, whose circulation had been growing during this era, bestowed widespread and enduring notoriety on the killer because of
JACK THE RIPPER~
modus operandi_similarities~
role of the media_legend building
04
Jack the Ripper is a pseudonym given to an unidentified serial killer active in the largely impoverished Whitechapel area and adjacent districts of London, England, in late 1888. The name originated in a letter sent to the London Central News Agency by someone claiming to be the murderer.
05
new text new text new text

The Edit Toolbar

The Edit toolbar provides a number of options known from other Windows applications. Many of these options are also available from the Edit menu.

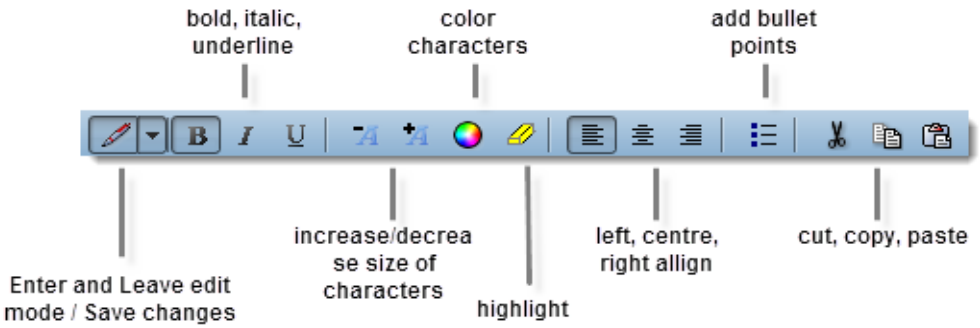


Figure 175: Edit toolbar

The highlight color can be set under **Tools / Preferences / General Preferences**, tab: **Text Editor**.

How To Edit A Primary Document

Editing is only possible when logged into ATLAS.ti as an ATLAS.ti user with administrative rights! See "Administrative and Standard Access Rights."

Load a rich text or plain text PD. If you have added doc or docx files to your project, they are converted to rich text during the import process and thus are available in rich text format as well.

Click on the **Edit** button in the main toolbar, or select **Edit / Document Access / Enter Edit Mode** from the main menu.

If a non-editable document (e. g., a doc/docx or PDF document) is loaded, the editing toolbar is not available.

Edit the document.

When you are done, save your changes and leave edit mode: Click the **Edit** button and select **Save and Leave Edit Mode.**

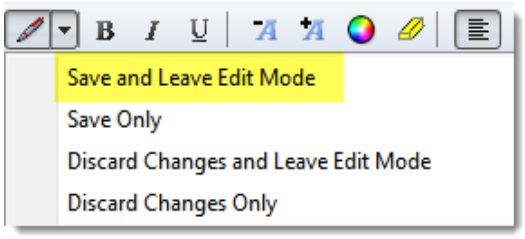


Figure 176: Saving a modified primary document

Changes to the document must be explicitly saved when leaving the edit session.

If you leave the edit session without saving the edited PD, the changes will be discarded. This includes all changes to the HU caused by the editing session, e. g., quotations deleted, copied, or moved by deleting, copying, or moving text. If you do not save, the text will revert to the state before the last edit session or when the document was last saved.

If you choose **Save Only**, all modifications are saved, a log file is created or an existing one modified and you can continue to edit the document.

If you select the option **Discard Changes and Leave Edit Mode** , then all changes are discarded and no log file is created. If a log file already existed, no additional information is added to it

If you choose **Discard Changes Only**, the recent modifications are dropped and the document is reverted to its last saved state.

Since there is no Undo function for document editing activities, make it a habit to select **Save Only** once in a while during the edit session. Then you can revert to the last saved status in case you made a mistake by selecting **Discard Changes Only**.

Enriching A Plain Text Document

Saving a former plain text with formatting does not change the file extension.

If you have edited a plain text document and added formatting attributes like fonts, color, font size, bold, italic, embedded objects, etc., you are asked if you want to keep the formatting information and save the document as a rich text (rtf) document:

If you select No, any features contained in the document beyond plain text will be lost. If you want to keep the rich formatting, you need to confirm the message.

If you select Yes, the file will be saved in rich text format although the file extension (e. g., TXT) is not changed to RTF.

Embedded Objects

What Is An Embedded Object?

Data from a variety of applications like Word, Excel, and PowerPoint can be embedded within a PD's data source. In fact, objects can be embedded in *any* rich text available in an HU, including memos and comments.

How To Embed An Object

There are several ways to embed an object.

EMBED AN OBJECT VIA COPY AND PASTE SPECIAL

Copy a table (or a portion of it) in Excel.

In ATLAS.ti (enter edit mode within the PD area or in the memo or comment area) choose **Edit / Paste Special** and select the Excel object.

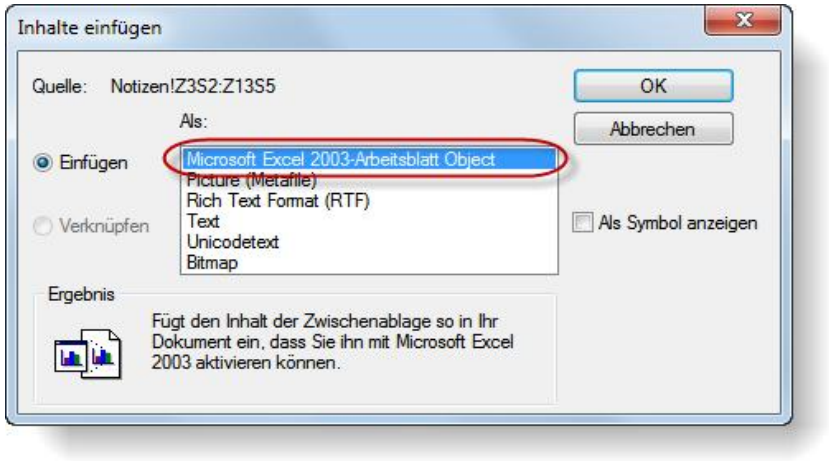


Figure 177: Paste special dialogue (which will show the language of your Windows system)

The list of formats available in the **Paste Special** dialog may also contain other non-object formats.

EMBED AN NEW OR EXISTING OBJECT VIA INSERT OBJECT

Enter edit mode and select **Edit / Insert / Insert Object** from the main menu.

The **Insert Object** dialog opens and offers all object types installed on your computer. However, not all of the objects listed in the dialog make sense inside a PD.

Create a new object: To create a new object select the object type and click OK. By default the option 'Create new object' is activated.

Load an object from a file: Activate the option 'Create from file' in the Insert Object dialog. Click OK and browse for the file to be inserted. If the file's content is not an embeddable object, an icon representation is inserted and displayed instead.

Inserting an object from a file is not the same as **Insert / Insert File**, which appends the usually textual contents of a file at the cursor position.

If you choose to **link** the object, it will also be inserted, but with a significant difference:

Linked objects: A linked object keeps a reference to the original file. When you edit the original Excel table, the changes will be written to the Excel file and will be updated in ALL documents where this object was embedded. Because of this, in-place activation is not available and the original application is launched when double-clicking the object.

An object inserted without checking the link option is fully embedded and has no reference to the file from which it originated. Editing this object will only modify this copy of the object.

Coding Embedded Objects

Every object is treated as a single character when it comes to selecting and coding it in ATLAS.ti.

You cannot "enter" an object in order to select and code parts of it (e. g., a single cell inside an Excel™ spreadsheet or a graphic inside a PowerPoint™ slide).

However, for some objects, selecting a more suitable format from the list presented by Paste Special (see also "Embed an Object via Copy and Paste Special") may be the solution. For instance, an Excel table is also offered as Rich Text. It won't look as neat as the original Excel object but you can select and code a single cell or several cells of the spreadsheet.

The same Excel table selection pasted into a document as as an Excel object and as Rich Text.

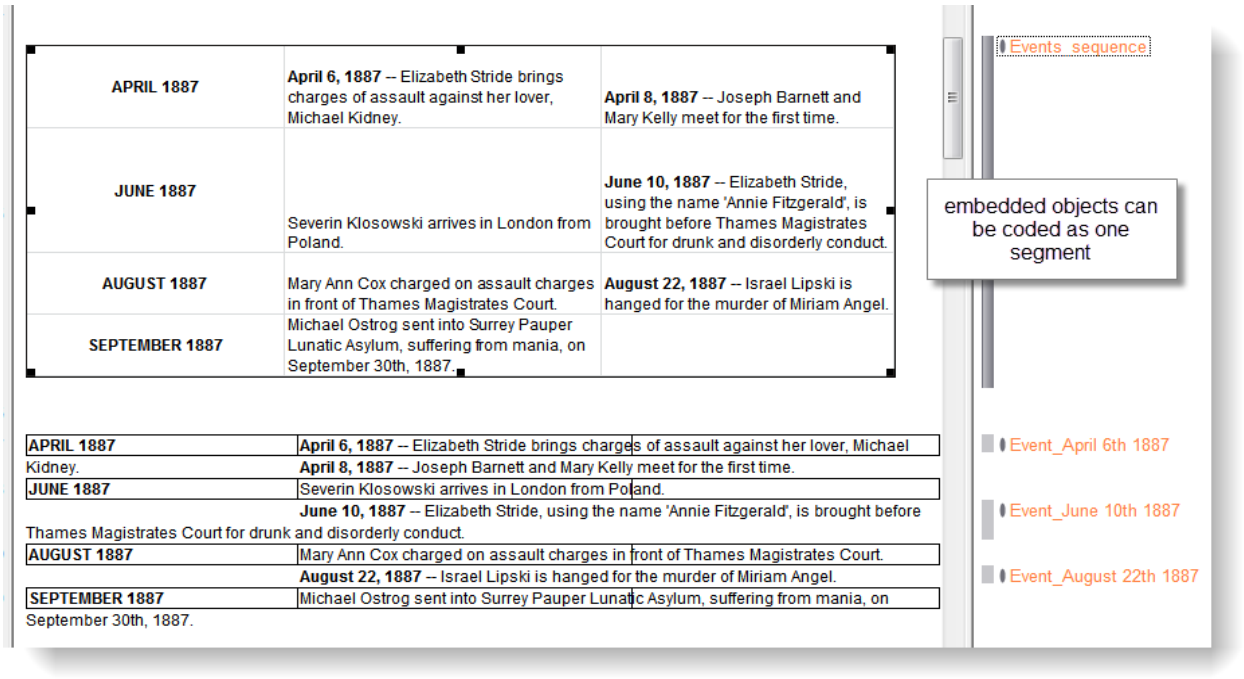

APRIL 1887
April 6, 1887 -- Elizabeth Stride brings charges of assault against her lover, Michael Kidney.
April 8, 1887 -- Joseph Barnett and Mary Kelly meet for the first time.
JUNE 1887
Severin Klosowski arrives in London from Poland.
June 10, 1887 -- Elizabeth Stride, using the name 'Annie Fitzgerald', is brought before Thames Magistrates Court for drunk and disorderly conduct.
AUGUST 1887
Mary Ann Cox charged on assault charges in front of Thames Magistrates Court.
August 22, 1887 -- Israel Lipski is hanged for the murder of Miriam Angel.
SEPTEMBER 1887
Michael Ostrog sent into Surrey Pauper Lunatic Asylum, suffering from mania, on September 30th, 1887.
Events_sequence
embedded objects can be coded as one segment
Event_April 6th 1887
Event_June 10th 1887
Event_August 22th 1887

Figure 178: Coding embedded objects as compared to inserted text

The margin shows several codes for the Rich Text version and only one code for the object version below.

Editing Embedded Objects

To edit an embedded or linked object:

- Enter **Edit** mode and double-click the object.

Idiosyncrasies

Objects can be activated and edited without the PD being in edit mode. Such changes are not permanent.

Activating an embedded object is possible even when the embedding PD is not currently in edit mode. For example, you may want to play a video or recalculate a range of cells without making such changes permanent. If you want to make changes and preserve the changes applied to an object in the ATLAS.ti HU, you need to enter edit mode before editing the object.

After deactivating an active object by clicking outside its border, you might find that the object has reverted to its original size.

Resizing an object can only be done by grabbing its selection frame at any resize handle except those located on the frame's right border. To get enough space to the left you might want to center or right-align the object before resizing.

Editing Primary Documents In Team Projects

Editing in team situations needs to be tightly controlled in order to not loose the integrity of the various HU file involved. If team members work at different locations and store data locally, the best solution is to restrict editing to the project administrator. For details on how to setup and manage team projects see "About this ManualAfter you have added documents to your project, save the project file (HU), to any location: Project / Save.."

If the team project is set up in way that all team members access the data on a a server (see example below), ATLAS.ti controls the editing process.

Let's assume you work in a team of five people. Each of you is located in a separate office or at different geographical locations. All of you work on the same project and analyze the same pool of data source files. As shown in the figure below, all data source files are located on a network drive and are shared by all team members.

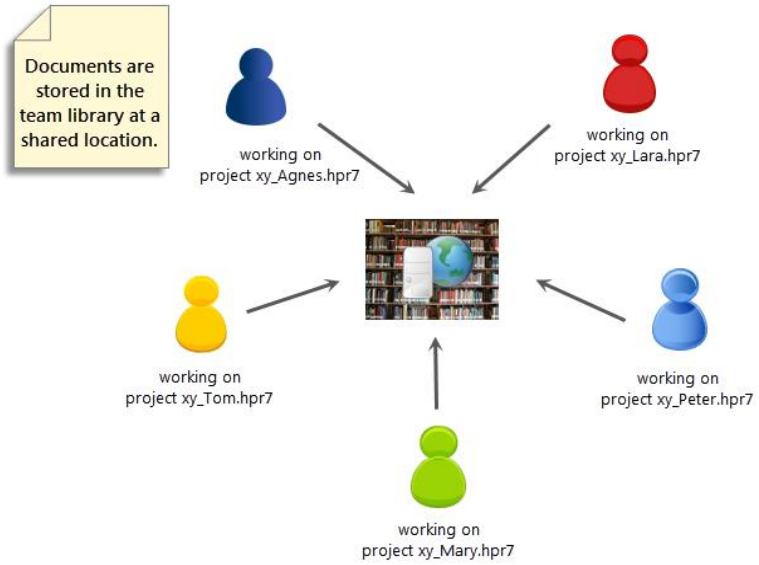

Documents are stored in the team library at a shared location.
working on project xy_Agnes.hpr7
working on project xy_Lara.hpr7
working on project xy_Tom.hpr7
working on project xy_Peter.hpr7
working on project xy_Mary.hpr7

Figure 179: Editing in a team situation

While the data sources referenced by an HU can be shared by multiple users, HUs cannot be worked on concurrently. Therefore, each team member works on her 'own' HU. The work can then be combined using the ATLAS.ti Merge feature.

It is Monday morning at 9 a.m. Peter, Tom, and Agnes are currently working on the ATLAS.ti project. Agnes works with PD*4*. She reads through it, codes it, and writes a few memos. Peter now also wants to look at the document. He loads the document into his HU, checks a few things, and codes a few more data segments. Then he continues to work on P5.

Agnes continues her work on *P4*. While reading through it, she recognizes that some places are not anonymized and wants to correct it. In order to do so, she enters edit mode. She can however only do so, if no one else is currently viewing the document. If this were the case, the following message pops up:

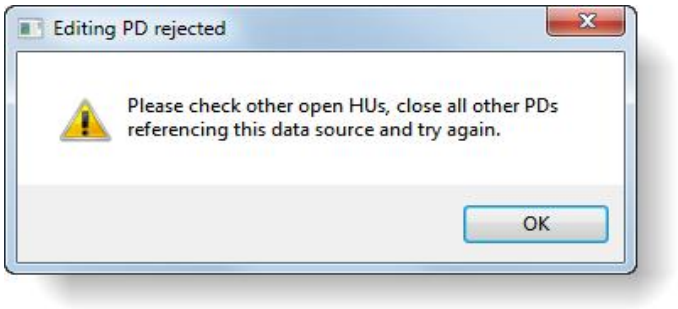


Figure 180: Editing is only possible if no one else is viewing the document

As this is not the case, Agnes can enter edit mode. While Agnes is editing the document, Tom wants to do some work on P4. He can however not load the document. Instead he sees the following message:

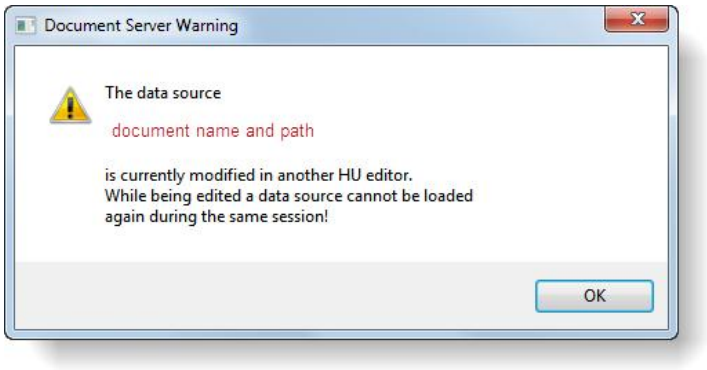

Document Server Warning
The data source
document name and path
is currently modified in another HU editor.
While being edited a data source cannot be loaded again during the same session!
OK

Figure 181: Server message informing users that a primary document is currently edited

Agnes corrects the document and leaves edit mode and saves the changes made in the source file of P4.

Tom tries to accesses P4 a bit later. He receives a message stating that changes have been detected in *P4* and that all PDs using this data source need to be synchronized. In order to load the document, Tom needs to confirm this message. If he clicks NO, he will not be able to load the document until he confirms the synchronization. Modified PDs can *only* be loaded after all necessary alignments have been processed during the synchronization.

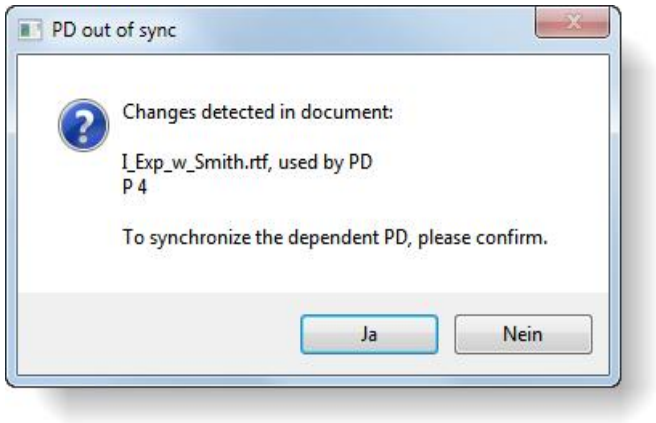


Figure 182: Synchronizing edited primary documents

After synchronizing *P4*, Tom can continue to work on it, add new codes, memos etc. He may also edit the document. All other team members will be informed about any further modifications. For this reason, there is no danger that the team will end up with five different versions of the document. Due to ATLAS.ti's content surveillance system, each team member works with the most up-to-date version of the document.

The only thing that remains to be done is to merge the HUs from all five team members from time to time, so that all coding and other work performed on the data is joined together. See "Merging Hermeneutic Units" for further detail on merging HUs.

Trouble-Shooting: Problems With Loading An Edited Document

As explained above, ATLAS.ti needs to keep track of the changes you make to a document in order to be able to adjust the quotations and coded segments accordingly. It does not only keep track of the latest changes but also stores a number of revisions files so that it is possible to revert to a previous version in case a modified document can no longer be loaded.

With proper handling of your project, there should never been a issue (e.g. if you always have a copy bundle file of your latest project version). However, technology (and users) can be unpredictable. If a hard disk fails, for example, files might be destroyed or no longer work properly. Users may get mixed up with different versions, and mistakes may occur along the way during the process of merging and transferring projects. Sometimes it is difficult to reconstruct the history of what happened. Please do consult the help desk if you are in a situation like that. They will help you to sort it out as best as possible.

> If you can no longer open an edited document and ATLAS.ti tells you that the latest revision file is missing, right-click on the document in the PDocs Manager and select the option **Data Source Management / Reset to last valid revision**.

This still can mean that some of the coded segments have shifted and that you need to adjust them manually. However, this is probably better than having to start from scratch again.

Family Life

Just as codes describe sets of quotations, families cluster Primary Documents, Codes, and Memos. One important objective is to manage large amounts of objects by classifying them into subsets, e. g., all *theoretical* codes, all PDs from *respondents of a certain age group* or *location*, all memos related to a *theme*, etc.

Purpose Of Creating And Working With Families

In the following, the role of families as variables, super families and for controlling the HU merge procedure are introduced.

While families are used to classify a group of objects, the objects they classify can be members of more than one family.

Unlike Network Views, which can contain objects of different types as nodes, families can only contain one type of object. For example, a code can never be a member of a memo family.

Partitioning objects into families reduces the number of "chunks" requiring the researcher's attention. Families are often used for filtering (see "Sorting and Filtering"), and when formulating queries in the Query Tool (see "Creating a Query with the Query Tool"). The side panels in the managers offer a convenient way to create them and to set them as local and global filters (see "The Manager Side Panel ."

Example: When conducting an interview study with respondents from various backgrounds and locations, **PD families** can be created to classify the respondents into:

- Female / Male
- Location A, Location B, Location C
- Age Group 1 (20-30), Age Group 2 (31-40), Age Group 3 (41-50)
- Blue-collar worker, White-collar worker, Management, etc.

Families make effective user-defined filters. For example, you can filter PDs to only view female respondents.

In the Query Tool, PD families can be used to restrict the scope of the search. For example, you can ask for all quotations coded by Code_A and Code_B that occur in documents of white-collar female respondents from location B.

The **PD-Family table** function provides a convenient way to import and export variables (see below for a detailed explanation).

Code families can be used to loosely group codes that belong together. You can use them to sort, filter and organize your codes in the Code Manager via the side panel.

Other than in Network Views where specific relationships between codes need to be defined, in code families it is not necessary to specify the ways in which codes relate to each other.

Use **memo families** to sort, filter, and organize your memos.

Super Families

Super Families are combination of other families (including other Super Families). You can build complex families incrementally from existing families using a set of powerful Boolean operators. From a technical perspective Super Families function just like Super Codes (see "Super Codes"). They can either be created in the super family tool or in the side panels of Managers (see "Creating Super Families as Global Filters."

Using Families When Merging Hermeneutic Units

A special application of families is used to specify the sets of objects to be excluded in the process of merging Hermeneutic Units (see "Merging Hermeneutic Units").

Common Procedures

Although the handling of families and their members is identical, their usage differs between types of families. In the following, the general aspects of and procedures for working with families are described. Thereafter, a description of specific characteristics of the different family types follows.

All procedures for displaying, editing, and creating families are found in the menus of their object type (i. e., under the Documents, Codes, and Memos menus).

Families can be created in both the Family Manager and the side panels of the respective Managers (see "The Manager Side Panel ." The Family Manager offers a few more options than the side panel. The side panels are however better integrated into the regular work-flow. Thus, for daily regular activities you are likely to use the side panels, for more selective operations the Family Managers.

The Family Managers

Using the Family Managers you can create, edit, and delete families. You can add and remove items ('family members'), write comments concerning a particular family, or set a family as filter.

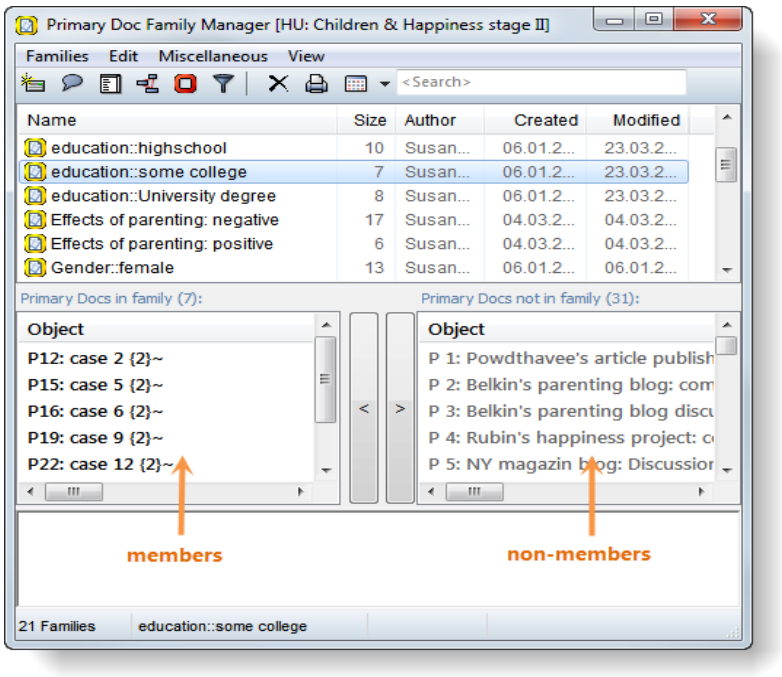

Primary Doc Family Manager [HU: Children & Happiness stage II]
Families Edit Miscellaneous View
<Search>
Name Size Author Created Modified
education::highschool 10 Susan... 06.01.2... 23.03.2...
education::some college 7 Susan... 06.01.2... 23.03.2...
education::University degree 8 Susan... 06.01.2... 23.03.2...
Effects of parenting: negative 17 Susan... 04.03.2... 04.03.2...
Effects of parenting: positive 6 Susan... 04.03.2... 04.03.2...
Gender::female 13 Susan... 06.01.2... 06.01.2...
Primary Docs in family (7):
Primary Docs not in family (31):
Object
P12: case 2 {2}~
P15: case 5 {2}~
P16: case 6 {2}~
P19: case 9 {2}~
P22: case 12 {2}~
Object
P 1: Powdthavee's article publish
P 2: Belkin's parenting blog: com
P 3: Belkin's parenting blog discu
P 4: Rubin's happiness project: c
P 5: NY magazin blog: Discussion
members
non-members
21 Families
education::some college

Figure 183: Primary Document Family Manager

Family Managers and the procedures described in the following are the same for all family types.

Components Of The Family Manager

The Family Manager's main pane lists all families for the specific object type.

- The window displays the name, (member) size, author, and creation and modification dates (not currently visible). The columns can be used to sort the families according to these criteria by clicking the column header.
- The left list below the family list displays the "family members" already assigned.
- The two buttons between the list panes are for assigning or removing items from the selected family.
- The right list displays all items not currently assigned to the selected family.
- The comment area contains an optional description for the family.

To Open A Family Manager

Select **Families / Open Family Manager** from the **Documents**, **Codes**, or **Memos** menu.

The **Families** submenu is available from the Documents, Codes and Memos menu.

The Family Manager is also available by clicking the Family button in the corresponding Object Manager (see left).

Creating Families

Before using a family, it must first be created in the Family Manager.

- Open the Family Manager for PDs, codes, or memos.
- Click the button **Create a New Item** or select the menu option **Families / New Family**.
- Enter a name when prompted and click **OK**. If you enter the name of an already existing family, you will hear an error sound. A message pops up letting you know that the entered name is not accepted.

Now you can add members and write a preliminary comment describing the family.

The number of items in a family is displayed behind the family's name in parentheses.

Adding Members

After a family is created, adding members is often the next logical step. However, the assignment and removal of items can be done at any time during the life cycle of a family. To add new items to a family:

- Select a family. If you have just created the family, it is already selected.
- Select one or more items in the list pane on the right hand side.
- Click the **Add Items** button to make the selected items members of the selected family (see Figure 184).
- If you want to add one item at a time, you can simply double-click an item.

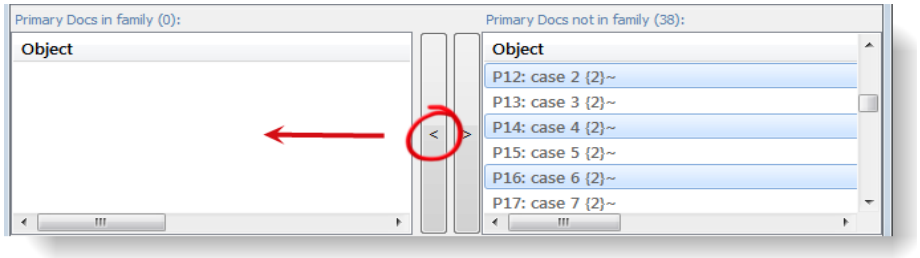


Figure 184: Adding members to a family

Watch the member list being populated with the items you have just added.

Another way to add members is to drag them from an Object Manager, the HU Explorer, or the margin area into the member's pane.

Removing Members

Removing members is not possible in the side panels.

- Open the Family Manager for the relevant object type.
- Select a family.
- Select one or more items in the list pane for members.
- Click the Remove Items button to remove the selected items from the selected family. The items are only deleted from this family and not from the system.
- If you want to remove one item at a time, you can simply double-click on each item.

If you *delete* objects that belong to a family somewhere else, they will be removed automatically from all their hosting families.

Assigning Families To Objects

The option **Edit Families / Assign Families** is another way of adding members to a family. This option allows you to easily assign suitable attributes to objects either selected in the Family Assigner or an Object Manager.

Assigning Families To Objects In The Family Assigner

- Open the Family Assigner: **.../ Families / Assign Families**.
- Select an object (in the example below, it is a primary document) in the top pane and then the appropriate families in the lower right hand side.
- Click the **Add Items** button to assign the families to the selected object.

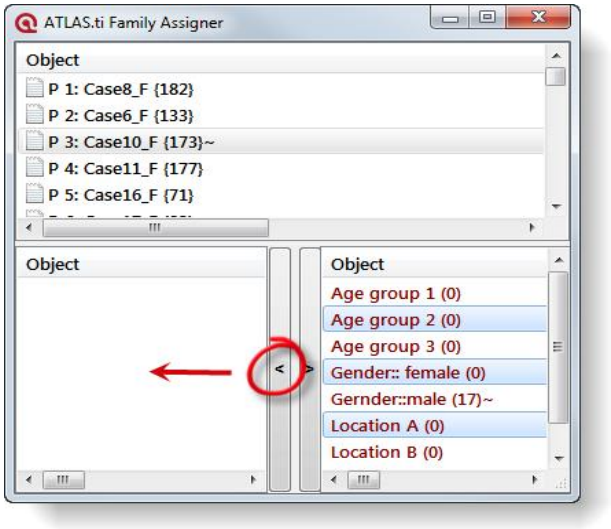


Figure 185: Assign families to objects in the Family Assigner

Assigning Families To Objects In Object Managers

- Select any number of objects in an Object Manager by holding down the **Ctrl**-key.
- Right click on one of the selected items and select Assign Families, or choose …/ **Families / Assign families** from the menu.
- From the list of families that opens, select one or more families to which the selected objects are to be assigned.
- Click **OK**.

Creating Families From Selected Items

- Select any number of items in an Object Manager by holding down the **Ctrl**-key.
- Right click on one of the selected items and select **Families / New from selected items**.
- Enter a name for the new family and click **OK**.

Accessing Quotations

To access the quotations related to the objects included in the family, double click on a family while holding the **Ctrl**-key.

Writing A Comment For A Family

The family comment can be used to describe why and for what purpose a family was created. This is especially useful when families are treated as attributes.

Creating Or Editing A Family Comment

- Open the Family Manager for the relevant object type.
- Select a family.
- In the text pane at the bottom of the window, write or edit a comment.

- Alternatively, you can open a full-fledged editor by clicking the Comment button in the toolbar.

Using Families As Filters

Access The Filter Options Via The Main Menu

One added value of families is that you can use them as filters. For example, if you have created a code family including only 'Abstract' codes, you can use this family as a filter to reduce the total number of codes displayed in the drop-down list in the Code Manager and the margin area.

Filter Items Using The Family Manager

- Open the Family Manager.

filter icon

- Double-click a family. Watch how the display in the Object Manger and the margin area changes to display only items that are members of the selected family.

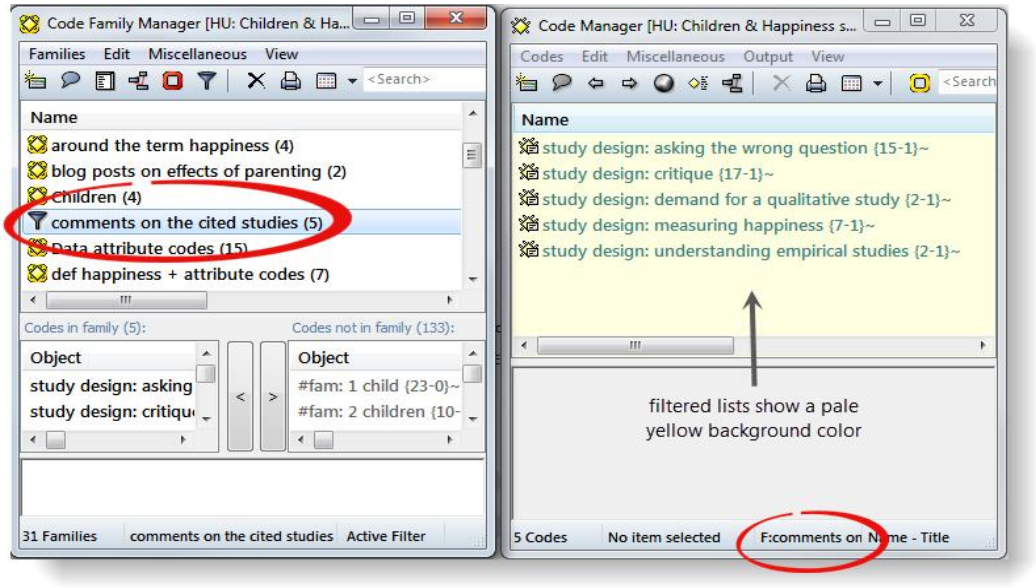

Code Family Manager [HU: Children & Ha...
Families Edit Miscellaneous View
Name
around the term happiness (4)
blog posts on effects of parenting (2)
Children (4)
comments on the cited studies (5)
Data attribute codes (15)
def happiness + attribute codes (7)
Codes in family (5):
Codes not in family (133):
Object
study design: asking
study design: critiqu
#fam: 1 child {23-0}~
#fam: 2 children {10-
31 Families
comments on the cited studies
Active Filter
Code Manager [HU: Children & Happiness s...
Codes Edit Miscellaneous Output View
Name
study design: asking the wrong question {15-1}~
study design: critique {17-1}~
study design: demand for a qualitative study {2-1}~
study design: measuring happiness {7-1}~
study design: understanding empirical studies {2-1}~
filtered lists show a pale yellow background color
5 Codes
No item selected
F:comments on Name - Title

Figure 186: Double clicking on a family in the family manager activates a filter

If a family is activated as a filter, the family icon is replaced by the filter icon. In addition, the background color of the affected lists changes. The active filter is also indicated in the filter field of the status bar in the Object Manager.

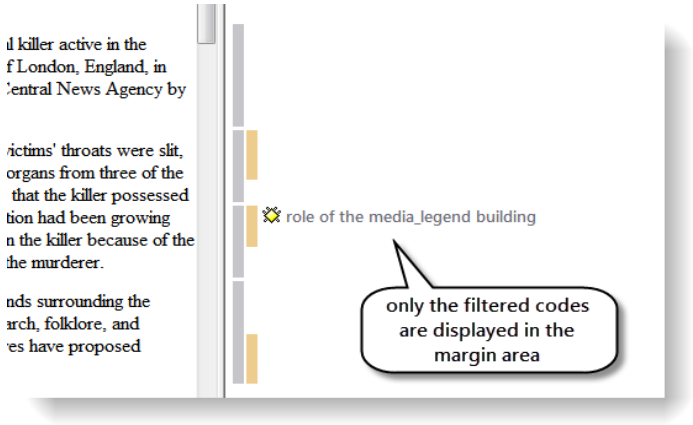

l killer active in the
f London, England, in
Central News Agency by
victims' throats were slit,
organs from three of the
that the killer possessed
tion had been growing
n the killer because of the
the murderer.
nds surrounding the
arch, folklore, and
es have proposed
role of the media_legend building
only the filtered codes are displayed in the margin area

Figure 187: Effect of a code filter in the margin area

To take the filter out double-click on the family again, or select **Tools / Reset all Filters** from the main menu. A third option is to double-click on the filter field in the Object Manager while holding down the **Ctrl**-key.

Filter settings also affect network views. See "About this ManualWorking with Filters in Network Views."

Removing Families

- Open the Family Manager for the relevant object type.
- Select the family to be removed.
- Click the **Delete** button or select menu option **Families / Delete Family.**

Removing a family does not remove any of the contained items.

Working With Variables: Primary Document Families

PD families as variables can be used in queries and SPSS jobs.

Along with sharing all the characteristics of code and memo families, PD families have some additional characteristics.

PD Families can be used to define the scope of a query when used as global attributes supplementing codes. For instance, if the PD families "female" and "age group 1 (21-30)" were assigned to a number of interviews, one can then formulate queries like: "Show me all quotations from interviews with females between the ages 21 to 30 coded with "coping" or "power." For a step-by-step instruction, see "Restricting Code Queries to Sub Groups ."

In SPSS jobs, PD families are a way to aggregate some of the data (see "How SPSS Export Handles Families").

Use PD-Family tables to assign PDs and variables at the same time.

PD-Family tables are an efficient means to create families and to assign PDs to their respective families. You can also use them to assign PDs and to generate variables in one step.

PD-Family Table

PD-Family Tables can be exported or imported as tab-delimited (XLS) or as *comma/semicolon separated value* (CSV) files. All three formats can be read by Excel™ as well as OpenOffice Calc.

Below you see an example of an exported file. The coloring has been added for readability. Below each column header and content is explained.

	A	B	C	D	E	F	G	H	I	J
1	documents	Name	survey data	Q5: bring fullfillment & purpose	Q6: bring happiness	#number of children	#education	#Gender	#marital status	#has children
2	P 15	case 1	1	1	1	1	highschool	male	divorced	yes
3	P 16	case 2	1	1	0	0	some colleg	female	single	no
4	P 17	case 3	1	1	0	2	University d	female	divorced	yes
5	P 18	case 4	1	1	0	2	highschool	male	married	yes
6	P 19	case 5	1	1	1	2	some colleg	male	divorced	yes
7	P 20	case 6	1	0	1	0	some colleg	female	single	no
8	P 21	case 7	1	0	1	2	University d	male	married	yes
9	P 22	case 8	1	0	0	1	highschool	female	married	yes
10	P 23	case 9	1	1	0	0	some colleg	male	single	no
11	P 24	case 10	1	1	1	2	University d	male	divorced	yes
12	P 25	case 11	1	0	1	2	highschool	female	married	yes
13	P 26	case 12	1	1	0	1	some colleg	female	married	yes
14	P 27	case 13	1	1	0	0	highschool	male	single	no

Figure 188: An Exported PD Family Table (some formatting added)

Documents: The PD sequence number.

Name: The name of the PD.

All following columns: Primary document families.

PD families following the syntax 'variable label::attribute value' are converted in Excel into one variable with the column header '#variable label'. The attribute values are entered into the cells. For instance, the two PD families 'Gender::male' and 'Gender::female' are converted into the variable #Gender and the two values male and female. This is further explained below ("Type of Variables").

Type Of Variables

Within ATLAS.ti, all families, when interpreted as variables, are dichotomous because an item may or may not belong to a specific family, thus it I encoded with either 0 or 1 / applies or does not apply.

documents	Name	Berlin	London	New York	Tokyo
P 1	Case8_F	1	0	0	0
P 2	Case6_F	0	1	0	0
P 3	Case10_F	0	0	1	0
P 4	Case11_F	0	0	0	1
P 5	Case50_M	0	0	1	0
P 6	Case2_F	0	0	0	1
P 7	Case3_F	1	0	0	0
P 8	Case4_F	0	0	0	1
P 9	Case54_M	0	1	0	0
P 10	Case15_F	0	0	1	0
P 11	Case20_F	0	0	0	1
P 12	Case22_F	1	0	0	0

Figure 189: By default PD families are like dichotomous variables

By following a simple naming convention, PD families can be turned into nominal and categorical variables for the use outside of ATLAS.ti in statistical and other database applications.

Let's assume that your respondents come from four different locations. To represent this in ATLAS.ti, you need to create four PD families, one for each location. Exporting these for families as PD-Family table to Excel, you get a table as shown above containing one variable per family with the values 0 or 1.

If you prefer just one variable for location rather than four, you need to follow the naming convention "Variable Name::Variable Value" when creating your PD families:

```
Location::Berlin
Location::London
Location::New York
Location::Tokyo
```

When exporting the PD-Family table, the result will be as follows:

documents	Name	#Location
P 1	Case8_F	Berlin
P 2	Case6_F	London
P 3	Case10_F	New York
P 4	Case11_F	Tokyo
P 5	Case50_M	New York
P 6	Case2_F	Tokyo
P 7	Case3_F	Berlin
P 8	Case4_F	Tokyo
P 9	Case54_M	London
P 10	Case15_F	New York
P 11	Case20_F	Tokyo
P 12	Case22_F	Berlin

Figure 190: PD family table with a nominal variable for location

The table shows one variable for Location and the respective values as string: `Berlin, London, New York` and `Tokyo`. Note that the variable name is prefixed with a hash sign (#). This is the syntax that needs to be used when preparing a table for import (see below). The hash sign indicates to ATLAS.ti that this variable needs to be turned into multiple families.

Super Families In PD Family Tables

Super Families (see below) are treated like standard families. If you do not change the default name suggested by ATLAS.ti when creating super families, then they are prefixed by an asterisk (*). In the table below you see two super families combining the families for *age group 1* and *2* with the family *female*.

documents	Name	*Age group 1 & female	*Age group 2 & female
P 1	Case8_F	1	0
P 2	Case6_F	1	0
P 3	Case10_F	1	0
P 4	Case11_F	1	0
P 5	Case16_F	1	0
P 19	Case2_F	0	1
P 20	Case3_F	0	1
P 21	Case4_F	0	1
P 22	Case5_F	0	1
P 23	Case13_F	0	1
P 24	Case14_F	0	1

Figure 191: Display of PD Superfamilies in PD-Family tables

Do not assign a PD to more than one family with the same variable name (e. g., both to `Location::Berlin` and `Location::New York`). ATLAS.ti allows this, as it treats every family as a separate dichotomous variable. However, when converted into a categorical variable "Location" in the process of creating a PD-Family table, such multiple assignments could create problems.

Preparing And Importing A PD-Family Table

Create the following columns when manually preparing a PD-Family table for import from a spreadsheet application such as Excel™:

First column: Use 'Documents' as the header and a PD number in subsequent rows.

Second column: Use header "Name" and enter a name for the PD in each row.

The next one or two columns: As already mentioned above, the document path is stored twofold when a table is created by ATLAS.ti: The actual path at the time of export (column Path) and the path at the time of the assignment of the document to the HU (column: @Origin). The latter can also contain special path components (<HUPATH>, <TBPATH>) that will be correctly resolved when imported into ATLAS.ti.

When reading a table into ATLAS.ti, the Path column has more or less descriptive character as the @Origin is always preferred. Therefore the Path column can be omitted when creating a table manually.

If neither the Path nor the @Origin column is defined, the **name** of the document is used as file reference in combination with the special <HUPATH>. In order to be able to access the data, you need to store the HU file and the documents in on common folder.

All following columns: Enter variable names and values, i. e. the document families into the subsequent columns. Novels

Categorical variables: For all categorical variables, use a hash (#) as the lead character, as in: #Profession, #Gender, etc. Enter the values as string.

Missing values: Missing values are indicated by a zero (0) and used for documents not assigned to any family.

If a field name or value contains characters resembling the separator for categorical variables, you need to enclose the name or value with quotation marks.

If the HUPATH setup (as the easiest and most flexible project setup) suits your needs, then an Excel table ready for import could look like this:

documents	Name	#gender	#profession	reading novels
P 1	case 1.rtf	male	teacher	0
P 2	case 2.rtf	male	police	1
P 3	case 3.rtf	female	teacher	1
P 4	case 4.rtf	female	teacher	0
P 5	case 5.rtf	female	police	1

Figure 192: An Excel table ready for import as PD-Family table

- You simply enter the consecutive numbers for PDs, the document names and the variables.
- Save the table as native Excel tab-delimited xls/xlsx file or in csv format.
- Open ATLAS.ti.
- From the main menu, select **Documents / Import / Import/Export / Import PD-Family Table**. This option is also available from the Documents / Miscellaneous menu.
- If you are importing into a new HU, a dialog opens, asking you to save the HU before proceeding. This is needed to be able to access "HU follower" documents using the special <HUPATH>:
- Save the HU into the same folder where the documents are stored (unless you have entered an @Origin column with user defined path references).
- Next a file dialog opens. If you are importing into an existing HU, the standard file dialog window opens immediately. Select the prepared xls/xlsx or csv file and click **OK** to start the import procedure.

If you import a native Excel file (tab delimited with the extension xls), the families are imported immediately. If you select an Excel compatible file format like csv, select the field delimiter: *comma*, *semicolon*, or *tab*.

Once the import is finished a message pops up informing you about the number of families that have been created.

Importing the above table, results in the following HU:

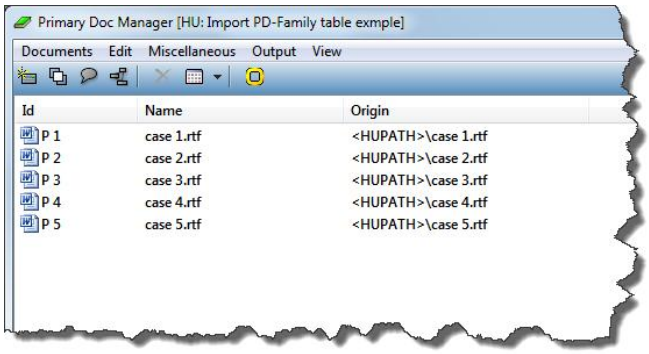


Figure 193: HU file created based on importing a PD-Family table

Five PDs with the names case 1 to case 5 were created, and they access their source document via the HUPATH. This means you need to store the HU file + the five Word documents in rich text format in a common folder as shown below.

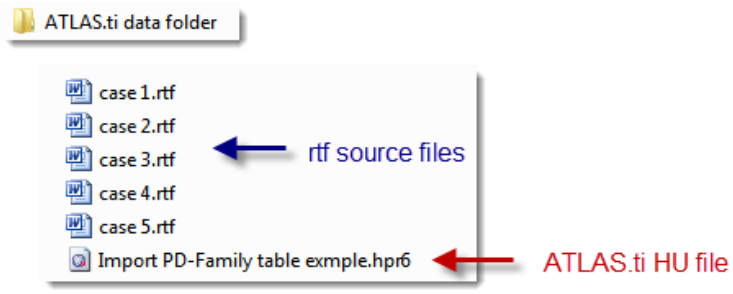


Figure 194: File Management for creating an HU via importing a PD-Family table

If the PDs do not yet exist in the HU, new PDs are created and are assigned to the HU.

Adding new PDs: If your HU already contains PDs, you can add more PDs by importing a PD Family table. However, you must be sure that the new PDs are numbered consecutively. If your HU already contains P1 to P10, the numbers of the additional PDs in the documents column need to start at P11. If the document number and path reference do not match an existing reference, then this document is ignored and not assigned as a PD.

Based on the above example table, PD Family Manager shows the following families after importing the table:

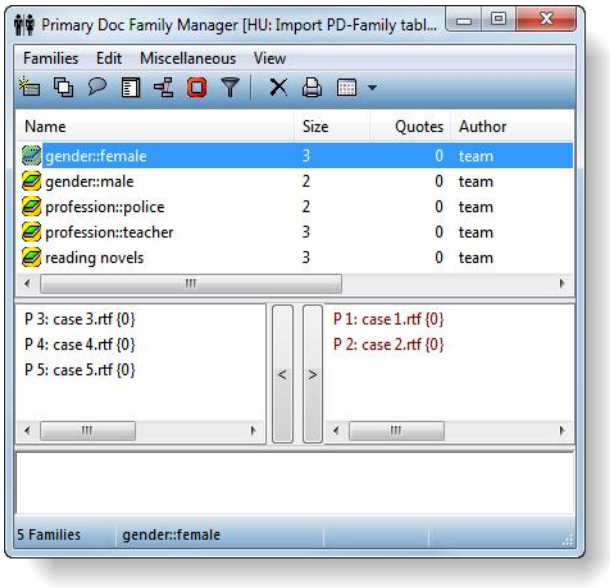

Primary Doc Family Manager [HU: Import PD-Family tabl...
Families Edit Miscellaneous View
Name Size Quotes Author
gender::female 3 0 team
gender::male 2 0 team
profession::police 2 0 team
profession::teacher 3 0 team
reading novels 3 0 team
P 3: case 3.rtf {0}
P 4: case 4.rtf {0}
P 5: case 5.rtf {0}
P 1: case 1.rtf {0}
P 2: case 2.rtf {0}
5 Families
gender::female

Figure 195: Created PD families after import

Exporting A PD-Family Table

If the documents have already been assigned, exporting a PD-Family table is quite handy as a first step in preparing a table for import. This way ATLAS.ti creates the columns documents, Name, Path and @Origin for you and you do not have to retype the file names. The table can be exported even if no family has yet been created.

If you have named your variable families using a different separator, change the separator when prompted

Select **Documents / Import/Export / Export PD-Family Table** from the main menu. This option is also available in the PD Family Manager from the Families menu or the context menu.

You are prompted for a separator value. Click OK if you use the default value "**::**". If you use a different value, change it accordingly.

Next, select the output format, e. g. **xls,** and click **OK**.

Finally, specify the output target as usual (see "Output Destinations"for details). For example, select **File & Run** for the table to be opened in Excel or OpenOffice Calc immediately

Code Families

Code families in the ATLAS.ti framework are simply named sets of codes

In ATLAS.ti, the term "code family" is used to sort codes into named sets or groups. For example, if you have four categories that are types of actors you

can group them into a code family. Four members of the "actors" family might be friends, parents, siblings, and partner.

Creating Code Families From Network Views

This procedure assumes some acquaintance with the network view function (see "The Network Editor "). Creating a code family from a Network View's code nodes might be useful when you need to print all quotations referenced by the codes in the Network View or to filter all codes contained in a Network View.

- Open a Network View.
- From the main menu in the Network Editor, select **Specials / Generate Family.**
- You are prompted for a name. The offered default name is the name of the Network View. Accept the name or type in a new name and click **OK**.

Code Families Add Analytic Power In Queries

Code families can be used with codes to construct queries using the Query Tool. Families are interpreted in queries as if all its contained codes were combined using the Boolean operator OR. For example, a code family containing the four codes water, fire, air, and earth is interpreted in a query as 'water OR fire OR air OR earth'.

Furthermore Code Families can be used as filters in combination with the Co-occurence Tools. They are quite effective in focusing your attention to just the subset of data you are interested in. The Co-occurence Tools are often used when you want to relate two code categories or two group of codes to each other. Rather then running a query that contains all codes, you create a code family that just contains the codes that you are interested in, set it as filter (e. g. **Codes / Filter / Families** →) and than run the Co-occurence Tree or Table Explorer (see "The Code Co-occurrence Table ").

A third option is to reduce the number of codes displayed in a Codes-Primary-Documents-Table (see "Codes-Primary Documents Cross-Tabulation") by setting a Code Family as filter. This is often combined with setting a PD Family as filter as well. This way, you export just the data you want to focus on, instead of producing a large Excel table that contains all documents and all codes.

PD And Code Families In SPSS Jobs

In addition to being used within ATLAS.ti, PD families as well as code families are used when creating SPSS jobs. Both PD and Code Families are a way to aggregate data in SPSS (see "SPSS Export" for further detail).

Memo Families

Memo families are useful for sorting and filtering your written reflections about the project. Memos can be separated by type such as theoretical or linguistic (see "Working with Memos").

The procedures for creating and handling memo families resemble those for code families.

Working With Memos

Possible uses for memos:
To take methodological notes
As a "bulletin board" in team projects
As a project planning device.
As a primary document
To create code lists

Writing memos is an important task in every phase of the qualitative analysis process. The **ideas** captured in memos are often the "pieces of a puzzle" that are later put together in the phase of report writing. **Theory-building**, often associated with building networks, also can involve the use of memos.

Memos are explanatory and descriptive texts that may be **associated with other "objects"** like quotations, codes, or other memos. Memos can also **"stand alone"** – simply as part of an HU. They can contain **methodological notes**; they can be used as a **bulletin board** to exchange information between team members; you can use them to write **notes about the analytical process**, keeping a journal of to-dos. Memos may also serve as a **repository** for symbols, text templates, and embedded objects that you may want to insert into PDs or other memos.

Memos can also be assigned as primary documents, if you want to code them (see "Using Memos as PDs").

Difference Between Memos And Codes

Code names are (or should be) succinct, dense descriptors for concepts emerging during the stage of closely studying the data. They often reduce complex findings to crisp placeholders and/or theoretically relevant concepts.

Beginners often stuff lengthy treatises into a code name, blurring the distinction between codes, comments, and memos and thereby mistaking codes for their more appropriate siblings.

If you find yourself using more than a few words as code word, consider using quotations or the code comment instead.

Like codes, memos have names. These names, or titles, are used for displaying memos in browsers, and help to find specific memos. Just like code names, a memo's title should be short and concise. Don't confuse the name with its content!

How Memos And Comments Differ

A comment is always a **part** of another object; a memo is an object by itself.

Memos are very similar to comments in that both are intended to hold lengthy texts, as opposed to codes that are simply naming a concept. Comments exclusively belong to one entity. For example, the PD comment is part of the primary document.

Comments are not displayed in browsers separately from the object to which they are attached. Memos can be associated with more than one object and

have an additional **type** attribute, e. g., theoretical, methodological, commentary, etc. They can also be free-standing, unlike comments.

Memo Content

Memos may use plain-text as well as Unicode or Rich Text. The latter allows extended formatting and offers the option to insert pictures, tables etc. You can also include local file names like file://notation.

The Memo Editor

For displaying and editing memos, a modified text editor is used. It is opened via the Memo Manager's toolbar for an existing, selected memo or when creating a new memo.

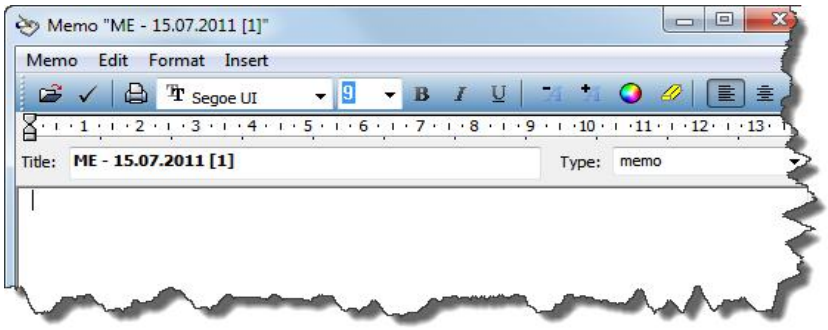


Figure 196: The memo editor

Below the toolbar, the editor includes a title and memo type field. The default title assigned to a newly created memo is: "*ME – today's date*". The title and the default type "*Commentary*" can be changed by overwriting the default title or by selecting a different memo type.

Various options are available. You can change the default memo title and manage available memo types. You can also be prompted for a title when creating a new memo. For details see "Memo Preferences."

After having typed or changed something in the memo editor and before closing the editor, save the contents if you want to keep it. Click on the Save button or select **Memo / Save** from the editor's menu.

Create A Free Memo

In the Memo Manager, click the **Create New** button or select **Create Free Memo** from the HUEditor's **Memos** menu.

A new memo with the default memo title is created. The memo editor opens (default setting).

Change the memo title according to your needs and begin to type the memo.

Save the memo content before moving on to do something else by clicking on the Accept button, or select **Memo / Save** or click **Ctrl+S**. If you forget to save it, you are reminded by the program to do so before closing the editor.

Attaching Memos To Data Segments

The procedure to create and associate a memo with a data segment or an existing quotation is similar to the coding procedures described above (see "General Coding Procedure").

Create A Memo For A Data Segment

Select the part of the primary document for which you want to write a memo.

Click the memo button in the primary document toolbar.

If the selected data segment does not resemble an existing quotation, a new quotation is created and the memo is attached. An editor opens and you can start to type.

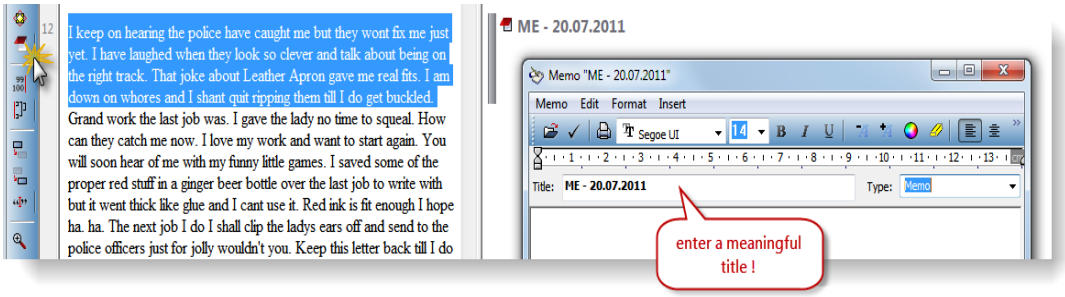

I keep on hearing the police have caught me but they wont fix me just yet. I have laughed when they look so clever and talk about being on the right track. That joke about Leather Apron gave me real fits. I am down on whores and I shant quit ripping them till I do get buckled. Grand work the last job was. I gave the lady no time to squeal. How can they catch me now. I love my work and want to start again. You will soon hear of me with my funny little games. I saved some of the proper red stuff in a ginger beer bottle over the last job to write with but it went thick like glue and I cant use it. Red ink is fit enough I hope ha. ha. The next job I do I shall clip the ladys ears off and send to the police officers just for jolly wouldn't you. Keep this letter back till I do
ME - 20.07.2011
Memo "ME - 20.07.2011"
Memo Edit Format Insert
Segoe UI
14
Title: ME - 20.07.2011
Type: Memo
enter a meaningful title !

Figure 197: Attaching a memo to a data segment

Adapt the automatically generated memo type and title according to your needs.

You can customize the default values used for memo title and type via **Tools /Preferences / General Preferences, tab: Memos**.

Attach A Memo To A Data Segment

Select the part of the primary document to which you want to attach the memo.

Select the part of the primary document to which you want to attach the memo.

Select a memo in the Memo Manager and drag and drop the memo to the highlighted data segment.

If the highlighted segment was not already a quotation, ATLAS.ti creates a new quotation and attaches the memo.

Attach A Memo To Multiple Quotations

One option is to drag a number of quotations from the Quotation Manager onto a memo in the Memo Manager. By using the Quotation Manager, one can comfortably browse and review display quotations before attaching them to the memo.

Another option is to select from a list of quotations:

In the Memo Manager, select a memo.

Choose menu option **Link Memo to: / Quotations** from the context menu or the Memos menu.

A window pops up showing all quotations that are currently not linked to this memo. Select the quotations to be associated with this memo. Click **OK**.

As a third option you can connect a memo and quotations visually by using the Network Editor (see "To link more than two nodes").

Memo Types

Memos can be organized, sorted and filtered by the **type** attribute. Several standard memo types are offered by ATLAS.ti (currently **commentary**, **method** and **theory)**. You can add new types or modify existing ones. Memo types may either have a global or local scope. Global types are available in all HUs; local memo types are known only for the HU for which they have been defined.

Memo types are displayed and can be sorted in the Memo Manager's details view in an extra Type column.

Create A Local Memo Type

When creating a new memo, simply overwrite the default memo type displayed in the memo editor's type field with a new type. After saving the memo, this new type may also be used for other memos inside this specific HU.

Add Or Remove Global Memo Types

Open the General Preferences dialog and select the **Memos** tab.

In section 'Global Memo Types' enter a new memo type in the entry field and click the **Add** button.

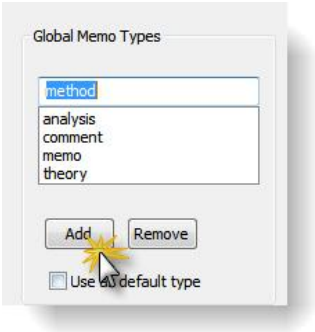


Figure 198: Adding new memo types

To remove a global memo type, select a memo type from the list and click **Remove.**

Click **Apply** and close General Preferences.

The **default memo type** is 'Commentary' unless you have set a different default in the dialog. This default type is used for newly created memos. To change the default type, select another memo type and tick the box 'use as default type'.

Make A Local Type Global

Choose the menu option **Miscellaneous / Make Type Global** from the context menu or from the **Memos** main menu to make all types of the selected memos global.

Using Memos As PDs

Memos can be assigned as primary documents. How you implement this option in your work depends on the nature of your project, your creativity, and methodological considerations.

Select a memo in the Memo Manager.

Select the menu option **Miscellaneous / Use as Primary Doc** from the context menu or the Memos menu. Or, drag the memo into the PD Manager.

Consequences Of Using Memos As PD

Assigning a memo as primary document has two immediate consequences:

- If you want to edit the memo's content, you need to edit the primary document. Once a memo has been assigned as a PD, you can no longer edit the memo in the Memo Manager. The reason is that, as a PD's data source, the memo may be referenced from quotations. Only the PD editing technology guarantees the necessary synchronization after content changes.
- All editing in the primary document also affects the memo. The reason for this is that the data source for the Primary Document IS the memo.

The 'PDs' column in the Memo Manager indicates whether a memo is used as primary document. The number displayed indicates the number of PDs using the memo as a data source. A dash (-) indicates that the memo is not used as a PD.

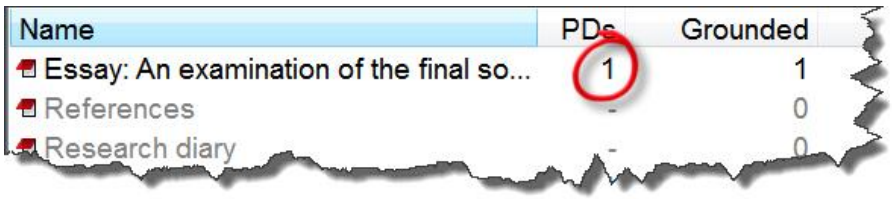


Figure 199: Memo used as PD

Miscellaneous Memo Goodies

Memo Preferences

You may specify a number of settings for memos via **Tools / Preferences / General Preferences**, Tab: **Memos**, or click on the preferences button in the main tool bar.

Dragging A Memo To Another Hermeneutic Unit

You can drag memos between HUs. This transfers the memo (name, body, type), but none of its referenced quotations, codes, etc., are migrated along.

Using Memos To Create A Code List

Using a "pseudo" memo allows you to bulk-create a large number of free codes:

- Create a new memo.
- Type a list of codes with one code per line, or copy and paste an existing list from an application like Word.
- Save the memo.
- From the **Miscellaneous** menu, choose the option **Create Codes from Selected Memo.**

Codes in the memo's code list that already exist are prefixed with three exclamation marks. If such prefixed codes already exist, they are ignored.

Drag & Drop Text To Create A Memo

While dropping text into the text pane of the Memo Manager or the memo editor inserts the dropped text at the drop position.

Margin Drag & Drop

Margin Drag & Drop can be toggled on and off via General Preferences "Advanced Drag & Drop"

All objects populating the margin area (i. e., "margin objects") support drag & drop. The bar visualize quotations segmenting the document, and - depending on the context - the objects attached to the bars represent themselves or the link with the quotation.

The effect of a drag & drop operation depends on the objects that are involved as drag sources (those that are dragged) and targets (those onto which objects are dropped).

A large variety of objects from the margin area can be dropped into the margin area. Furthermore, objects can also be dragged from other object managers and browsers. Objects can be dragged from the margin into other windows and even into "foreign" applications like Word™. In the latter case, the ATLAS.ti objects lose their ATLAS.ti specific "objectness" but at least they render into something useful, e. g., a formatted title and rich text comment.

Move Linked Objects

When an object (e. g., a code, memo, or hyperlink) is dropped on a quotation bar, a new link is created between the object and the quotation represented by the bar. In the figure below, the code 'historic context' is unlinked from its original quotation (silver bar) and linked to the quotation of the target bar.

Replacing a code: In the margin drag a code from one quotation onto another code and the target code is replaced.

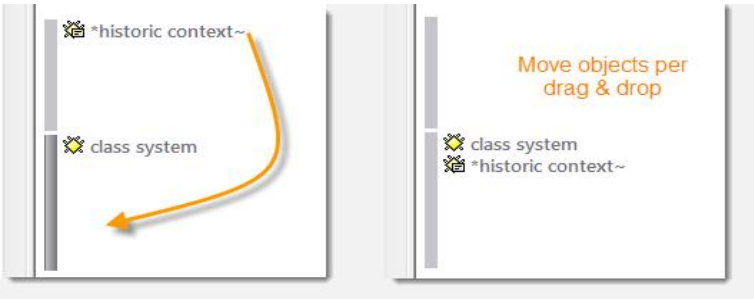


Figure 200: Moving linked objects

Replace Linked Objects

When a margin object is dropped onto another margin object it is replaced. It combines the operation described above with the replacement of the dropped-on object. Three operations are accomplished at the same time: the object is removed from its original quotation, it is linked to the target quotation, and it replaces the object it was dropped on (the latter is unlinked from its quotation).

Copy Linked Objects

To copy linked objects: hold down the Ctrl-key and drag a margin object (e. g., a code) onto another quotation bar.

An object in the margin is unlinked from its original quotation when it is dropped onto another quotation bar or onto another margin object. To keep the object from unlinking from its original place, hold down the **CTRL**-key when dropping. This resembles dragging objects from managers and browsers into the margin area, which does not change existing links.

Linking Quotations

Dragging a quotation bar onto another quotation bar creates a new hyperlink between the two (see "Creating Hyperlinks in Margin Area").

Merging Quotations

By holding down the **CTRL**-key you can merge the quotations. The following messages pops up:

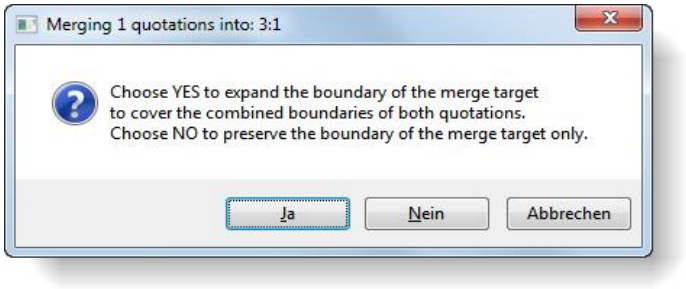

Merging 1 quotations into: 3:1
Choose YES to expand the boundary of the merge target
to cover the combined boundaries of both quotations.
Choose NO to preserve the boundary of the merge target only.
Ja
Nein
Abbrechen

Figure 201: Merging quotations

Click YES, if you want that the new quotations encompassed the length of both of the quotations.

Click No, if you want the dragged quotation to be deleted, thus merged into the target quotation.

Data Analysis And Theory-Building Tools

In the first part of this section, you find a description of exploratory and advanced analysis tools. These are: The word cruncher, the query tool, the co-occurrence tools, the code-primary-documents table, super codes and super families.

Visualization and theory-building tools encompass predominantly the various network view functions and ATLAS.ti's powerful hypertext/linking facilities.

Analysis Tools

Word Cruncher: Creates a word frequency count for textual primary documents (see section"The Word Cruncher").

Query Tool: Finds quotations based on a combination of codes like: "Show me all quotations where both Code A and Code B have been applied." Such queries can also be combined with variables in form of PD families. Thus, you can restrict a query to a certain sub groups of your documents: "Show me all quotations where both Code A and Code B have been applied, but only for female respondents between the age of 21 and 30" (see section "Query Tool").

Co-occurrence tools: Different from the query tool, where the results are quotations, you can use the two co-ocurrence tools to find codes. The tree explorer list all codes on the first level of the tree and if there are more codes that have been applied to the same or overlapping quotations, then you can open the tree branches to see those codes. If you open the tree further, the associated quotations are shown. The second tool, the table explorer, shows a cross-tabulation of codes and within the cells a frequency count of how often each pair of codes co-occurs. The cells also provide access to the data behind them (see section "Code Cooccurrence Tools").

Codes-Primary-Documents-Table: This table is a cross-tabulation of codes by primary documents. It shows how often a code has been applied to a document. Aggregate counts based on code families and PD families are also possible. (see section "Codes-Primary Documents Cross-Tabulation").

Super Codes are saved queries. They can be reused, e. g. after more coding has been done or after coding has been modified. They can also be used as part of other query, thus, you can build complex queries step by step (see "Super Codes").

Super Families: Like super codes, super families are saved queries based on families. The purpose is to create families on an aggregate level. For instance, if you have your base families for age groups, gender and location, you can create super families that reflect a combination of these base families like all females from age group 1 living in city X (see "Super Families").

Intercoder-Reliability: To assess intercoder reliability for data coded in ATLAS.ti., you can use the web based tool CAT to calculate Cohen's kappa and Cronbach's α (alpha). The functions the tool provides are explained in the section "Calculating Inter-Coder Reliability using CAT" and you find references for further resources on how to prepare ATLAS.ti data for upload.

Tools For Visualization And Theory Building

The first steps of theory building of course already take place much earlier, often already during coding. Ideas are developed further during the process of querying the data. By asking specific questions, you gain more and more insights and start to see how things are related. Memo writing is an essential accompanying activity as well. T

The **network view function** offers further possibilities to explore your data and to visualize your ideas and findings. In a network view editor you can link all objects to each other. Code-code and quotation-quotation links can also be named and commented. Further a number of graphical elements like colored links, the line width, the node or background color can be set. Image documents can be used as thumbnails (see "Network Views").

Another function discussed below is the creation of **hypertext**. This is a network based on quotations, thus you work on the data rather than on the more abstract coding level. Through hypertext, the original sequentiality of your data is de-linearized, broken down into pieces that are then reconnected, making it possible to traverse from one piece of data to another piece of data regardless of their original positions (see "Hypertext").

The Word Cruncher

This feature offers word "crunching" capabilities for a simple quantitative content analysis. It creates a list of word frequency counts for the selected or all (currently filtered) textual PDs. A **stop** and **go list** and a **list of ignorable characters** can be used to control the analysis. Further you can create a word cloud for the selected documents, or for all documents:

Creating A Word Count Table

From the main menu, select **Analysis / Word Cruncher** or click the main toolbar's Word Cruncher button.

A property dialog opens offering a number of options that affect the procedure:

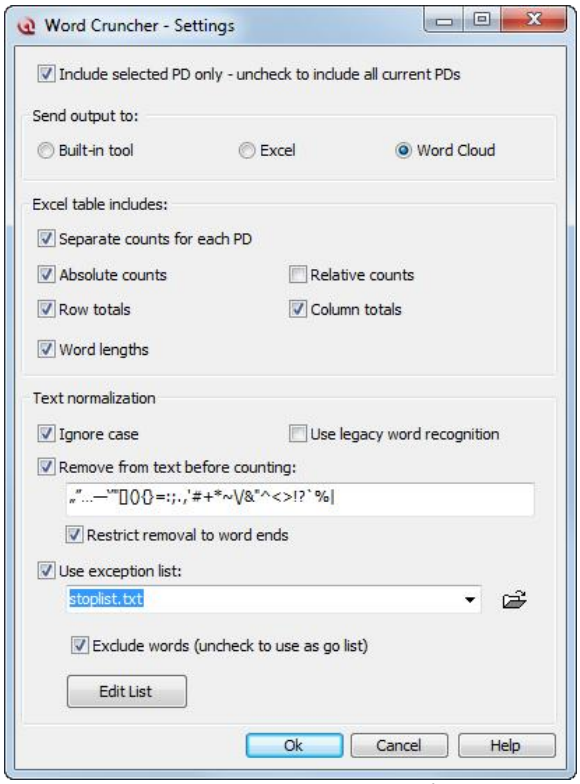


Figure 202: Setting properties to start a word frequency count

You may specify a number of properties before starting the frequency count.

Include Selected PD only: Select the **scope of the count** to be all textual documents or the selected one only.

Built-in Tool: The built-in tool is a simple list window. In addition to the frequency count, size and percentage for each word is shown. The built-in tool can only be used for a selected PD.

Excel: Select this option if you want to export the word count to Excel.

Word Cloud: Select this option to create a word cloud.

Specify content for Excel table: In the next section you can specify the type of content to be included in the Excel table.

Text normalization:

Ignore case: If checked, upper and lowercase letters are ignored: Hello, HELLO, and hello are not counted separately.

Use legacy word recognition: Starting with version 7.0.84, a new way of word recognition has been introduced that improves word recognition for Asian languages. However, the improved recognition pattern slows down the word count. If you were satisfied with the older pattern, click this option to increase speed.

Remove from text before counting: The characters specified in this field will be removed from the source before it is counted. Example: including " eliminates the difference between "Hello" and Hello.Enter special characters that should be not be counted.

Use a *stop list* to exclude words from the count. Instead of enumerating every variant of a word, you can specify patterns. You can create powerful stop lists for different languages, different topics, and different levels of detail.

Deactivate the option "Exclude words" to turn the stop list into a *go list*. This means, only those words that are in the stop list are counted and all other words are ignored.

The Stop And Go List

Click on the button **Edit list** if you want to modify it. The first lines starting with a semi colon contain an explanation of terms that can be used. All lines starting with a semi colon are not included in the frequency count.

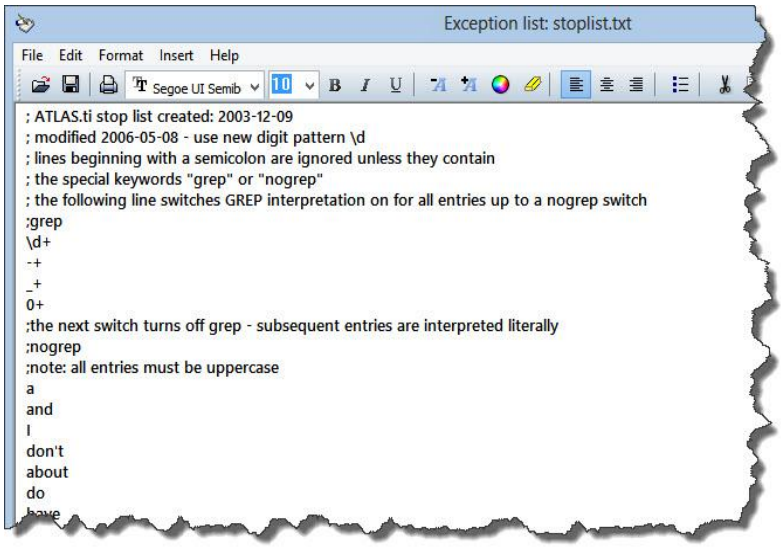

Exception list: stoplist.txt
File Edit Format Insert Help
Segoe UI Semib
10
; ATLAS.ti stop list created: 2003-12-09
; modified 2006-05-08 - use new digit pattern \d
; lines beginning with a semicolon are ignored unless they contain
; the special keywords "grep" or "nogrep"
; the following line switches GREP interpretation on for all entries up to a nogrep switch
;grep
\d+
-+
_+
0+
;the next switch turns off grep - subsequent entries are interpreted literally
;nogrep
;note: all entries must be uppercase
a
and
I
don't
about
do

Figure 203: Exception list editor

The terms to be excluded or included can be combined with regular expressions. See below the list of regular expressions that can be used:

Expression	Effect
\<.\>	excludes words consisting of a single character
/d+	excludes numbers of any length
-+	excludes strings of hyphens of arbitrary size
_+	excludes strings of underscores
0+	exclude sequences of zeros

It is no longer necessary to enter the words to be excluded / included in capital letters. The instruction in the default list still says that all entries must be in capital letters. The reason for this is that we cannot simply exchange the default file as long-time users of ATLAS.ti may already have customized their stop lists. Exchanging the default text file would overwrite all user-defined modifications.

Word Cruncher Output

The figure below shows the result when using the **built-in tool** for a single PD.

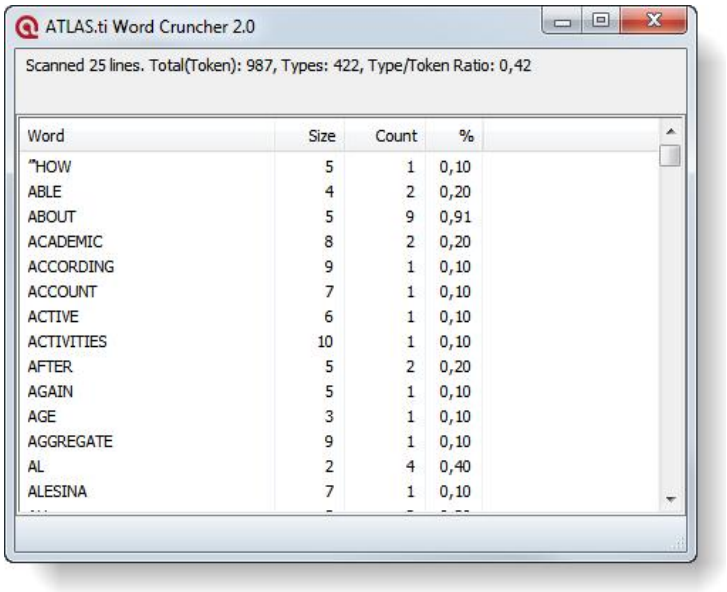

ATLAS.ti Word Cruncher 2.0
Scanned 25 lines. Total(Token): 987, Types: 422, Type/Token Ratio: 0,42
Word Size Count %
"HOW 5 1 0,10
ABLE 4 2 0,20
ABOUT 5 9 0,91
ACADEMIC 8 2 0,20
ACCORDING 9 1 0,10
ACCOUNT 7 1 0,10
ACTIVE 6 1 0,10
ACTIVITIES 10 1 0,10
AFTER 5 2 0,20
AGAIN 5 1 0,10
AGE 3 1 0,10
AGGREGATE 9 1 0,10
AL 2 4 0,40
ALESINA 7 1 0,10

Figure 204: Word Cruncher output when using the internal tool

If you select the Excel output option, a message pops up informing you that the Excel file can now be opened and where it is stored. Of course, you need to have Excel™ installed to be able to see the result.

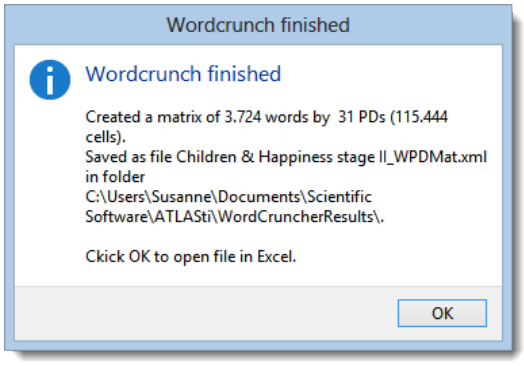

Wordcrunch finished
Wordcrunch finished
Created a matrix of 3.724 words by 31 PDs (115.444 cells).
Saved as file Children & Happiness stage II_WPDMat.xml in folder C:\Users\Susanne\Documents\Scientific Software\ATLASti\WordCruncherResults\.
Ckick OK to open file in Excel.
OK

Figure 205: Status window information you about word crunch results

A	B	C	D	E	F	G	H	I	J
WORDS	P 1	%	P 2	%	P 3	%	P 4	%	P 5	%
Total:	1378	100,00%	546	100,00%	6155	100,00%	354	0,00%	0	
children	31	2,25%	15	2,75%	165	2,68%	11	0,00%	84	
–	28	2,03%	2	0,37%	15	0,24%	0	0,00%	1	
happiness	21	1,52%	7	1,28%	76	1,23%	10	0,00%	1	
life	14	1,02%	3	0,55%	65	1,06%	1	0,00%	1	
illusion	13	0,94%	0	0,00%	0	0,00%	0	0,00%	1	
experiences	12	0,87%	6	1,10%	3	0,05%	0	0,00%	0	
satisfaction	12	0,87%	4	0,73%	11	0,18%	1	0,00%	0	
bring	11	0,80%	7	1,28%	18	0,29%	2	0,00%	0	
child	11	0,80%	2	0,37%	49	0,80%	2	0,00%	0	
one	11	0,80%	7	1,28%	39	0,63%	3	0,00%	0	

Figure 206: Word frequency count displayed in Excel

Use MS Excel™ functionality (such as sorting by highest to lowest frequency) for further exploration.

Word Cloud

The word cloud output looks as follows:

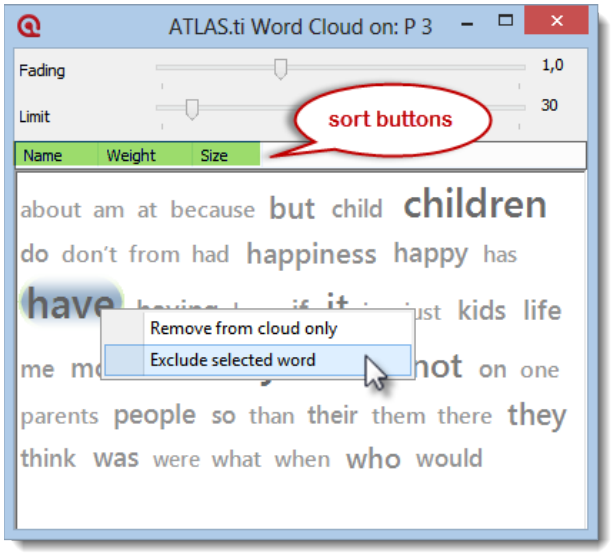


Figure 207: Word frequency cloud for P3

Fading fades out the less frequent words.

With the slider **Limit**, you can select how often a word should occur to be displayed in the list.

Right-click on a word and select **REMOVE FROM CLOUD ONLY** if you no longer want the word to be displayed in the current view.

If you do no longer want the word to be counted in all following runs, select the option: **EXCLUDE SELECTED WORD**. In stop list mode, this means that the word is added to the stop list. In Go List mode, the word is removed from the Go List.

Switch the sort order by name, weight or word size by clicking on the suitable tab.

The word cloud can also be created by right clicking on a document in the Primary Document Manager. Select **Word Cloud** from the context menu.

Query Tool

You need the Query Tool for queries using more than a single code.

The **Query Tool** is used for retrieving quotations using the codes they were associated with during the process of coding. This is different from a *text* search: To search for occurrences of text that match a specified pattern or string, you have to use the search function or the Object Crawler (see "Text Search" and "The Object Crawler").

The simplest retrieval of this kind ("search for quotations with codes") is what you frequently do with the Code Manager: double-clicking on a code retrieves all its quotations. This may already be regarded as a query, although it is a simple one. The Query Tool is more complex in that it can be used to create and process queries that include combinations of codes.

A **query** is a search expression built from operands (codes and code families) and operators (e. g. NOT, AND, OR, etc.) that define the conditions that a quotation must meet to be retrieved (e. g., all quotations coded with both codes A and B).

By selecting codes or code families and operators, a query can be built incrementally which is instantaneously evaluated and displayed as a list of quotations. This incremental building of complex search queries gives you an exploratory approach toward even the most complex queries.

The Query Tool Window

The Query Tool is launched by clicking the Query Tool button (see left), or by choosing **Analysis / Query Tool** from the HU Editor's main menu.

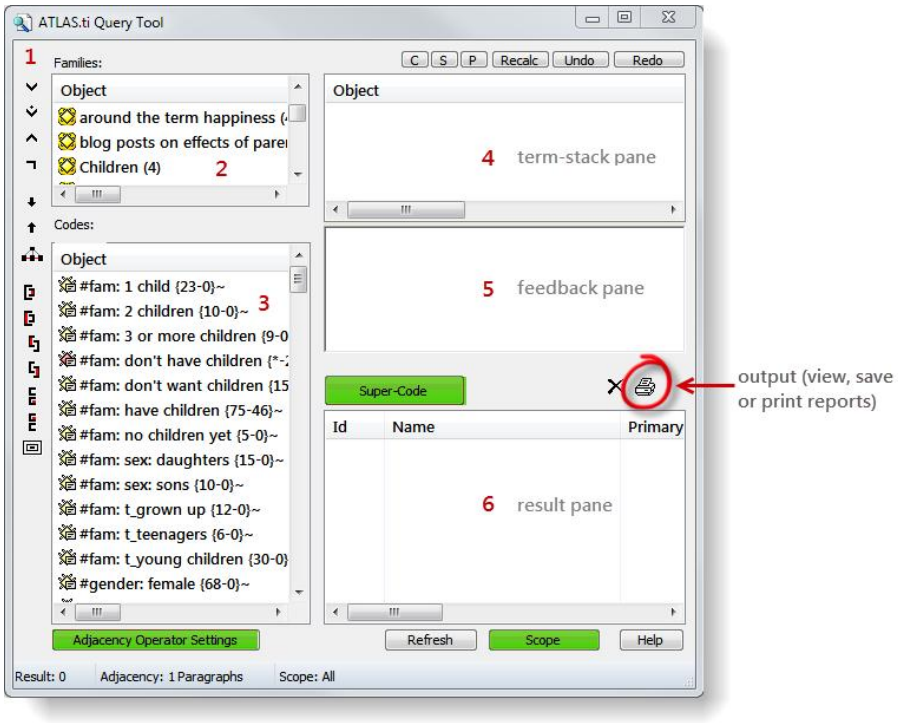


Figure 208: The Query Tool window

The Query Tool has the following main components:

[1] The **operator toolbar**, located near the left margin of the window.

[2] The **code-family pane** in the upper left lists code-families to be used in queries.

[3] The **codes pane** below the code-family pane contains all current codes (set filters do apply).

[4] The **term-stack pane** in the upper right displays the stack of all expressions entered in the current query. If more than one entry is visible, there are arguments still waiting to be used in the query. The topmost entry is the current query.

[5] The current query is also displayed in the **feedback pane** directly below the term-stack pane. Here a different notation is used, one that uses parentheses and resembles the calculator style of entering queries.

[6] The result of the query is displayed in the **results list** located in the lower right of the window.

Above the term-stack pane are several buttons for manipulating the stack: swapping (**S**) or duplicating terms (**P**), clearing the stack (**C**), etc.

Close to the results list are two buttons for removing unwanted hits and creating a report.

In figure 205 you see three other buttons highlighted in green. A super code is a saved query (see Super Codes for further detail). You need the adjacency operator settings if you want to search for codes near to each other (see Adjacency Operators). Behind the Scope button you find another important feature. When you click on the Scope button, a second window opens showing the PD families (see Family Life) you have created. These are often variables

like age, gender, education, profession, location, time intervals etc. The scope function allows you to combine a code query with variables. For instance you can ask for all quotations where you have applied code A and code B, but only for females between the ages of 21 to 30.

Operands

Basic Operands

Two sorts of *basic or atomic operands* may be used in a query: **Codes** and **code families**.

A code represents a set of quotations, while a code family yields the quotations of all the codes that its members have. In other words, a family is interpreted as its member codes connected by the Boolean operator OR. Selecting a code family F1 which contains five codes C1-C5 is equivalent to the query: "C1 OR C2 OR C3 OR C4 OR C5".

Complex Operands

"Operand" does not only apply to basic descriptors. An operand can be **any expression** that itself is used as an argument. An expression "A AND B" may be used in a more complex query as an operand: "NOT(A AND B)", "(A AND B) OR (C AND NOT D)", etc.

All types of operands can be freely mixed in a query using any of the operators described below.

Operators

Three sets of operators are available. They are located within the toolbar at the left edge of the Query Tool.

Boolean operators allow combinations of keywords according to set operations. They are the most common operators used in information retrieval systems.

Semantic operators exploit the network structures that were built from the codes.

Proximity operators are used to analyze the spatial relations (e. g., distance, embeddedness, overlapping, co-occurrence) between coded data segments.

You can display a short help message for each operator by right clicking on its corresponding button in the toolbar.

Boolean Operators

Four Boolean operators are available with the Query Tool: OR, XOR, AND, and NOT.

OR, XOR, and AND are *binary operators* which need exactly two operands as input. NOT needs only one operand. However, as stated above, the operands themselves may be of arbitrary complexity. Codes, code families, or arbitrary expressions can be used as operands: "(A OR B) AND (NOT C AND D)".

	OR The OR operator retrieves all data segments (i. e., quotations) that are coded with any of the codes used in the expression. Example: "All quotations coded with 'Earth' OR 'Fire'". An example of a more complex formulation based on a combination of queries is: "All quotations coded with 'Earth' OR coded by both 'Fire AND Water'."
	XOR The OR operator does not really match the everyday usage of "OR." Its meaning is "At least one of…," including the case where ALL conditions match. The XOR operator, in contrast, asks that "EXACTLY one of…" the conditions must meet. It translates into everyday "either-or." Example: "All quotations coded with EITHER 'Earth' OR 'Fire' (but not with both)."
	AND The AND operator finds quotations that match ALL the conditions specified in the query. This means you have applied two or more codes to the same quotation. Example: "All quotations coded with 'Earth' AND 'Fire'." The AND operator is very selective and often produces an empty result set. "Precision" of this operator is high, but the "recall" is rather low. It produces best results when combined with less restrictive operators or when the overall number of the available text segments is large.
	NOT The NOT operator tests for the absence of a condition. Technically, it subtracts the findings of the non-negated term from all data segments available. Given 120 quotations in the HU and 12 quotations assigned to code "Fire," the query "NOT Fire" retrieves 108 quotations - those which are *not* coded with "Fire." Of course, the operator can be used with an arbitrary expression as in the argument "NOT (Earth OR Fire)" which is the equivalent of "neither Earth nor Fire."

The OR operator has the potential to generate a HUGE number of hits. It has high "recall" (a lot is retrieved), but low "precision" (many of the retrieved quotations may not make sense).

Venn diagrams are descriptive schemes for illustrating the different set operations associated with Boolean operators.

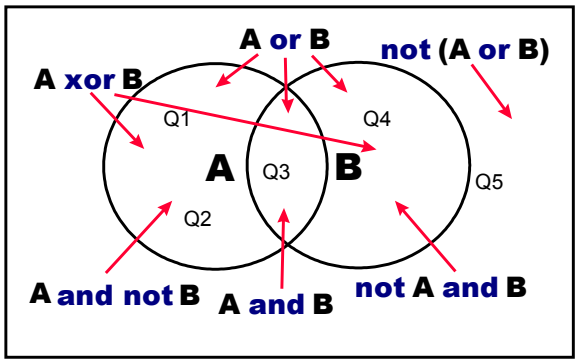


Figure 209: Boolean queries depicted as Venn diagrams

The rectangle encloses the set of all retrievable quotations, e. g. the "document universe." The two circles represent two codes A and B. Q1 to Q5 are quotations coded with A, B, or none (Q5).

ıtic Operators

The Semantic Operator buttons

The operators in this section exploit connected codes resulting from previous theory-building work. While Boolean-based queries are *extensional* and simply enumerate the elements of combined sets (e. g., LOVE or KINDNESS), semantic operators are *intentional*, as they already capture some meaning expressed in appropriately linked concepts (e. g., SUB(POSITIVE ATTITUDES)).

	SUB The SUB (or DOWN) operator traverses the network from higher to lower concepts, collecting all quotations from any of the sub codes. Only "transitive" relations between the codes are processed (see "Relations;" all others are types ignored. When building a terminology from your codes, use the ISA relation for sub-term links. Example: "All quotations coded with Magic or any (immediate or indirect) sub-term of Magic". Like the OR operator in the set of Boolean operators, the SUB may produce large result sets. However, unlike the OR operator, because you make use of a theory using SUB, the "precision" is much better (i. e., you get only what you expect). Of course, if your network contains dubious connections ("computer ISA intelligent entity"), the quality of your retrieval will decline.
	UP The UP operator looks at all directly linked codes and their quotations on the next higher level.. Unlike the SUB operator, it does not recursively traverse the structure. Only the next level is considered.

	SIBlings The SIBlings operator finds all quotations that are connected to the selected code or any other descendants of its parents. Example: "All quotations coded with Love or any other Positive Attitude (here: kindness)."

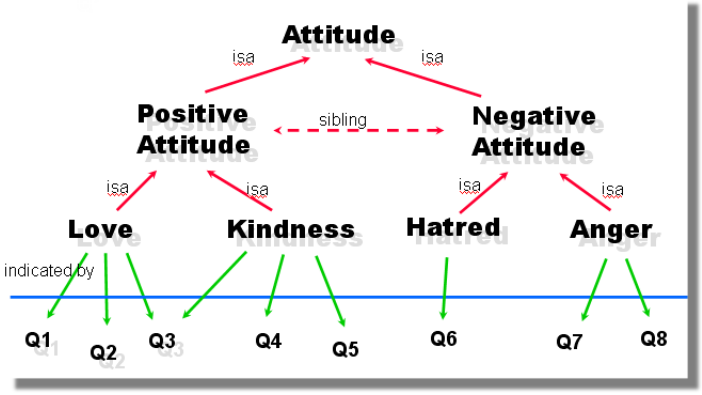


Figure 210: A hierarchy of concepts suitable for semantic retrieval

With such a network of codes the following queries would make sense (Q1 to Q8 = quotations):

```
SUB (Positive Attitude) => {Q1, Q2, Q3, Q4, Q5}
SUB (Negative Attitude} => {Q6, Q7, Q8}
SUB (Attitude) => {Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8}.
```

Proximity Operators

The Proximity Operator buttons

Proximity describes the spatial relation between quotations. Quotations can be embedded in one another, one may follow another, etc. The operators in this section exploit these relationships. They require two operands as their arguments. They differ from the other operators in one important aspect: proximity operators are *non-commutative*. This property makes their usage a little more difficult to learn.

Non-commutativity requires a certain input *sequence* for the operands. While "A OR B" is equal to "B OR A", this does not hold for any of the proximity operators: "A FOLLOWS B" is not equal to "B FOLLOWS A". When building a query, always enter the expressions in the order in which they appear in their natural language manifestation.

Because of non-commutativity, every proximity operator comes in two versions.

Another important characteristic for these operators is the specification of the operand for which you want the quotations retrieved. "A WITHIN B" specifies the constraint, but you must also specify if you want the quotations for the As or the Bs. This is done implicitly by the sequence. The code (or term) that is entered first is the one in which you are interested. If B's quotations are requested, you have to enter "B ENCLOSES A" using the query language described below.

EMBEDDING OPERATORS

The *embedding* operators describe quotations that are contained in one another and that are coded with certain codes.

	WITHIN A WITHIN B retrieves all quotations coded with A that are contained within data segments coded with B.
	ENCLOSES A ENCLOSES B retrieves all quotations coded with A that contain quotations coded with B.

OVERLAP OPERATORS

The *overlap* operators describe quotations that overlap one another.

	OVERLAPPED_BY A OVERLAPPED_BY B retrieves all quotations coded with A that are overlapped by quotations coded with B.
	OVERLAPS A OVERLAPS B retrieves all quotations coded with A that overlap quotations coded with B.

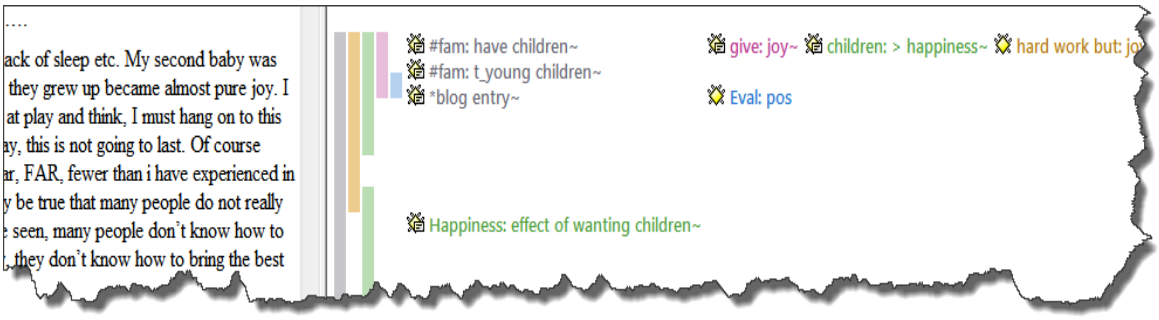

....
ack of sleep etc. My second baby was
they grew up became almost pure joy. I
at play and think, I must hang on to this
ay, this is not going to last. Of course
ar, FAR, fewer than i have experienced in
y be true that many people do not really
seen, many people don't know how to
they don't know how to bring the best
#fam: have children~
#fam: t_young children~
*blog entry~
give: joy~
children: > happiness~
hard work but: jo
Eval: pos
Happiness: effect of wanting children~

Figure 211: Visualizing the spatial relations between segments

If you want to retrieve all segments for "give joy" related to the code "#fam: have children" (see figure 211), you would need to click:

"give joy", "#fam: have children", WITHIN

If you enter: "give you","#fam: have children", WITHIN, the query tool would not deliver any results.

If you enter , "#fam: have children", "give joy" ENCLOSES, then the query tool retrieves the larger segment "#fam: have children".

If you are interested in reading the data segments coded with "Happiness: effect of wanting children" that co-occur with "hard work but", you click: "Happiness: effect of wanting children", "hard work but" COCCUR. If you want to read the "hard work but" segments, you enter the query the other way around, i.e. starting with the "hard work but" code.

From the above example we have learned that a) you begin with the codes whose content you are most interested in, and b) you first enter the codes and then you select an operator. See is explained in more detail below in the section "The Query Language".

Often when interested in the relation between two or more codes, you don't really care whether something overlaps or is overlapped by, or is within or encloses. It this is the case, you simply use the Code-Cooccurence operator, which is a combination of WITHIN, ENCLOSES, OVERLAPS, OVERLAPPED BY and AND.

Nonetheless these very specific operators are also very useful for specific type of data. Think of video data where it might be important whether action A was already going on before action B started or vice versa. Or if you have coded longer section in your data like biographical time periods in a persons life and then did some more fine-grained coding within these time periods. Then the WITHIN operator comes in handy. The same applies when working with pre-coded survey data. ATLAS.ti pre-codes your questions, then you do some further coding. This enables you to ask for instance for all quotations coded with "topic x" WITHIN "question 5".

ADJACENCY OPERATORS

The *distance* operators describe a sequence of disjoint quotations. The maximum distance may be specified. Possible base units are characters and paragraphs for text, milliseconds for audio files, frames for video data and pixels for images.

	FOLLOWS A FOLLOWS B retrieves all quotations coded with A that follow quotations coded with B.
	PRECEDES A PRECEDES B retrieves all quotations coded with A followed by quotations coded with B.

ADJACENCY SETTINGS

To set the distance, click on the "Adjacency Operator Settings" button. Then select a base unit and specify the maximum distance.

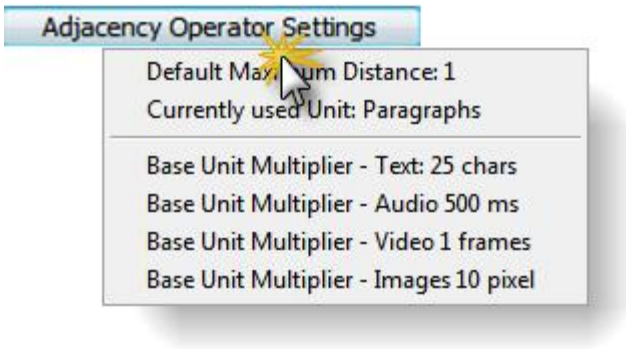

Adjacency Operator Settings
Default Maximum Distance: 1
Currently used Unit: Paragraphs
Base Unit Multiplier - Text: 25 chars
Base Unit Multiplier - Audio 500 ms
Base Unit Multiplier - Video 1 frames
Base Unit Multiplier - Images 10 pixel

Figure 212: Adjacency operator settings

THE CO-OCCURRENCE OPERATOR

Co-occurrence is essentially a short-cut for a combination of all the basic proximity operators except **FOLLOWS** and **PRECEDES**.

A CO-OCCURRING WITH B: Find all quotations that co-occur with B (in whatever way).

The procedures used for calculating co-occurrence for two codes is also used in the Network Editor when importing co-occurring codes into a network view. See "Import Co-occurring Codes."

The Query Language

Queries are built step-by-step from operands and operators using the principle of **Reversed Polish Notation (RPN)**. This sounds complicated, but it is actually

quite easy. See for example:
http://en.wikipedia.org/wiki/Reverse_Polish_notation

RPN, invented by Polish mathematician Lukasiewicz, does not require parentheses to control the priority of operators, nor does it require any other characters like commas, periods, etc. Every click produces a meaningful result and it is impossible to create syntactically wrong queries.

Operands First, Operators Next

The most important point to understand about RPN is the *order* in which operands and operators of a search expression are entered. Using RPN, operands (codes, code families) are entered first, followed by one or more operators. This is an unusual method for most of us who are familiar with notations where operators are placed *between* the operands, as in "3 + 5". Most calculators use this type of notation, also called "infix" notation.

Infix notation: good for reading. Postfix notation: good for clicking.

Two aspects must be distinguished: how we read expressions and how we formulate them with a "point and click" language. The infix notation is usually easier to read, but the "postfix" notation is far easier to use when creating queries using mouse-controlled direct manipulation user interfaces like Windows.

An Arithmetic Example

Here are some simple arithmetic examples using an RPN calculator:

Arithmetic expression	RPN expression
Example 1: 3 + 4	3 4 +
Example 2: 3 + (4 * 5)	4 5 *3 +
Example 3: (3 + 4) * 5	3 4 + 5 *

No parentheses are needed in expressions using RPN notation. The precedence of the operators is controlled solely by the order in which operands and operators are entered.

Creating A Query With The Query Tool

The result of **any** query is a set of quotations.

The retrieval of quotations with the Query Tool differs from the arithmetic example above by the result in which we are interested.

We are really not interested in the operands (codes, code families) themselves, but in the set of quotations that is the result of *evaluating* an operand. By formulating a query "A OR B," this is what we really mean: "*Quotations coded with code A OR quotations coded with B.*" Therefore, entering the operand code "X" displays the quotation names which were coded with "X" in the results list. Next, you can either view the resulting quotations in context within the primary document, or generate a report that contains the full lenght quotations with or without their comments.

Build complex queries incrementally with immediate feedback after each step.

A Boolean Query

The example below uses the HU "Children & Happiness Stage II" Please load and display this HU while reading the following. You can access the samples file via **Help / Quick Tour**

Our sample query, using Boolean operators, is this: "Find all quotations coded with either code "*children: = level of happiness*" or code "children: unrelated to happiness".

Open the Query Tool by clicking on the binoculars button in the main toolbar.

Double-click on the code "children: = level of happiness". The Query Tool displays the following entries:

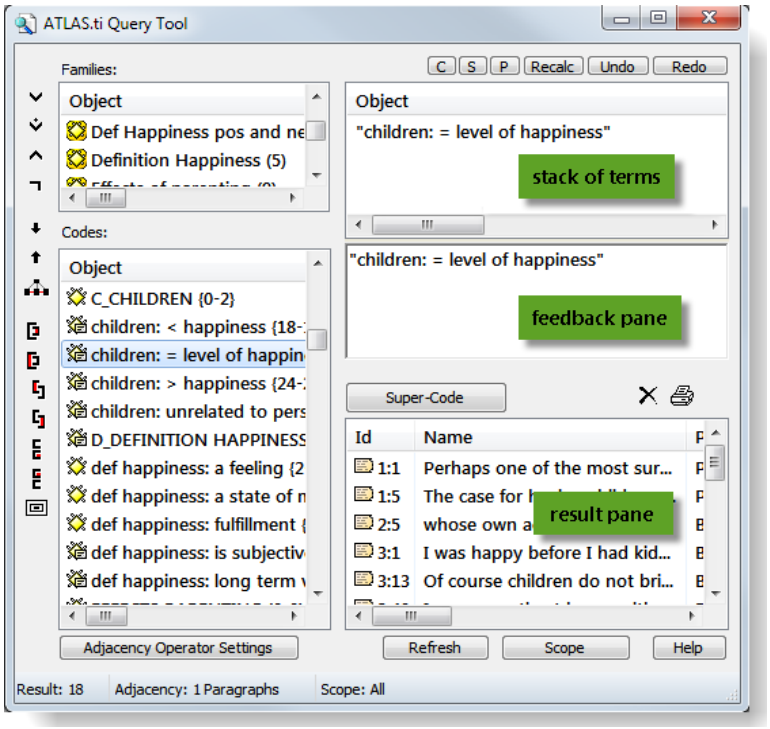


Figure 213: Clicking a Boolean Query: Step 1

The *term stack* and feedback pane now display the code "children: = level of happiness". The results pane lists all quotations for this code.

Double-click on the code "children: unrelated to happiness".

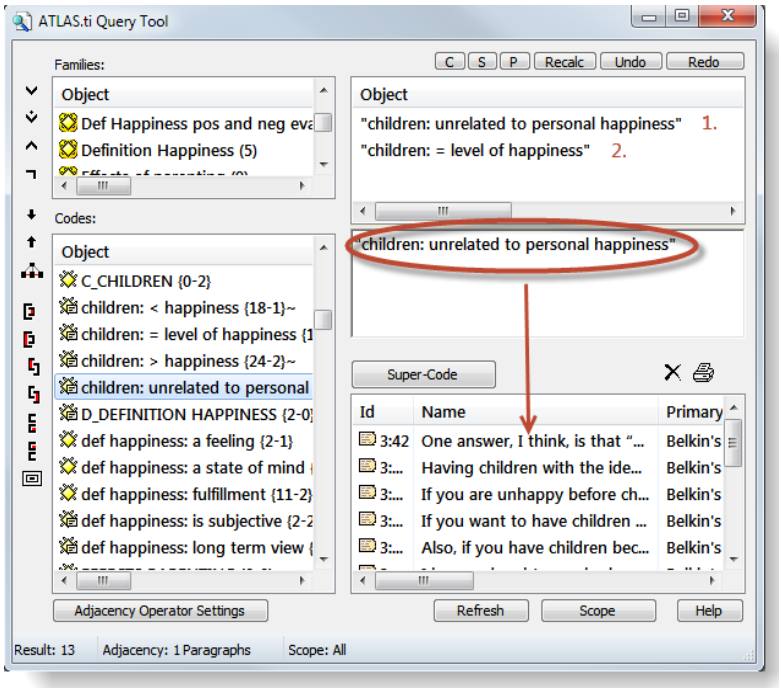


Figure 214: Clicking a Boolean Query: Step 2

Now there are two entries in the term stack, the codes "children: = level of happiness" and "children: unrelated to happiness" The feedback pane displays the active query: code "children: unrelated to happiness". And in the result pane you can immediately see the thirteen quotations coded with this code.

With two operands on the term stack, we can combine them with an appropriate operator. The intention was to retrieve all quotations that contain information about an alibi or lack of evidence as reasons to release a suspect.

Click on the OR operator (see left) to combine the two expressions from the stack.

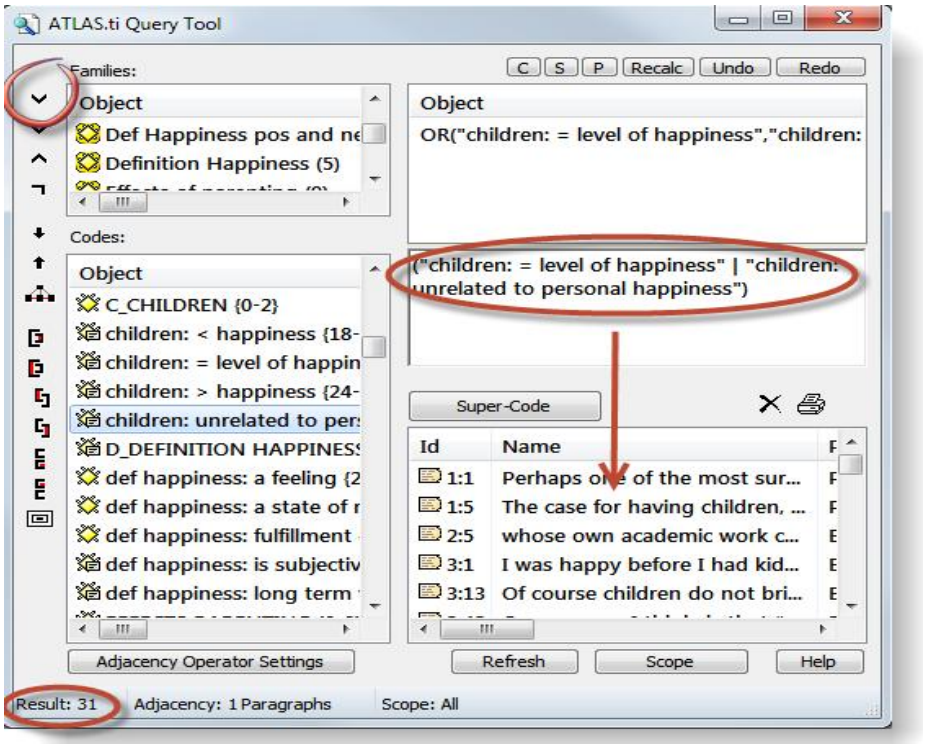


Figure 215: Clicking a Boolean Query: Step 3

The term stack now contains only one term, OR("children: = level of happiness","children: unrelated to happiness"), i. e. the combination of the two codes. This term can be used as an operand to further extend the query, e. g. to negate the expression or add some more codes to it. But we will stop here for now.

The feedback pane displays the query in infix notation, as we would have entered it into a regular calculator ("children: = level of happiness | "children: unrelated to happiness"). The results pane lists 31 quotations.

You can look at the quotations in the context of the document by clicking on a quotation in the list, or you can create a report (see "Output of Query Results" below).

Output Of Query Results

Viewing Results In Context

Make sure that the Query Tool does not completely obstruct the area where PDs are displayed.

Click on a quotation in the results pane.

The quotation is highlighted in the primary document pane:

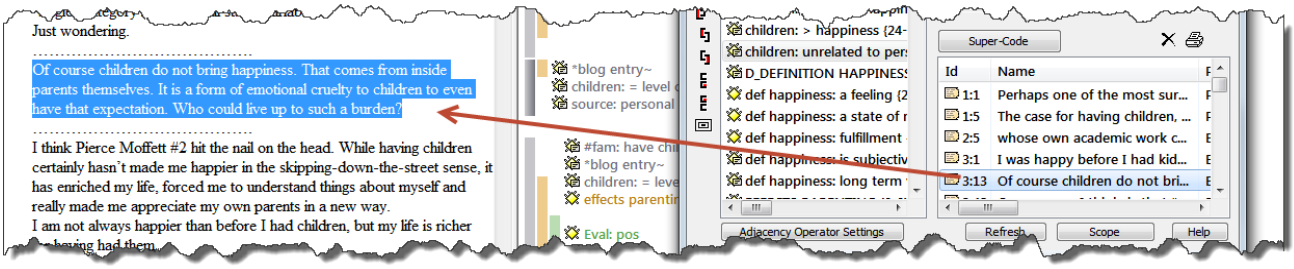

Just wondering.
Of course children do not bring happiness. That comes from inside parents themselves. It is a form of emotional cruelty to children to even have that expectation. Who could live up to such a burden?
I think Pierce Moffett #2 hit the nail on the head. While having children certainly hasn't made me happier in the skipping-down-the-street sense, it has enriched my life, forced me to understand things about myself and really made me appreciate my own parents in a new way.
I am not always happier than before I had children, but my life is richer
*blog entry~
children: = level
source: personal
#fam: have chi
*blog entry~
children: = leve
effects parentir
Eval: pos
children: > happiness {24-
children: unrelated to per:
D_DEFINITION HAPPINES
def happiness: a feeling {2
def happiness: a state of r
def happiness: fulfillment
def happiness: is subjectiv
def happiness: long term
Adjacency Operator Settings
Super-Code
Id
Name
1:1
Perhaps one of the most sur...
1:5
The case for having children, ...
2:5
whose own academic work c...
3:1
I was happy before I had kid...
3:13
Of course children do not bri...
Refresh
Scope
Help

Figure 216: Viewing results in context

Creating A Report

To print all hits found by a query, click the **PRINTER** button to the right of the results list.

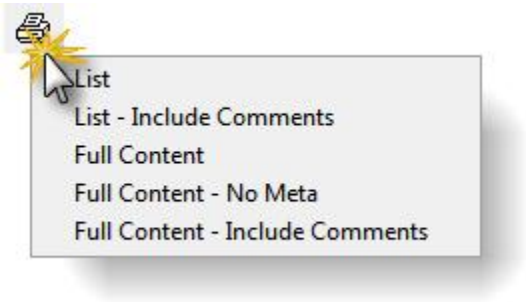


Figure 217: Output options

Select one of the following report options:

- **List:** Print a list of all quotations in a compact format showing only the quotation names.
- **List – Include Comments:** Same as **List** but includes the quotations' comments if any.
- **Full Content:** Output the *complete text* of the quotations (works for text-type quotations only, obviously).
- **Full Content – No Meta:** Output the *complete text* of the quotations and specify the kind of information that is included in the output. You may for example exclude the meta information for each quotation.
- **Full Content – Include Comments:** Same as **Full Content** but includes the quotations' comments if any.

Then, choose whether the output should be displayed in a text editor, saved to disk, or printed (see also "Output Destinations").

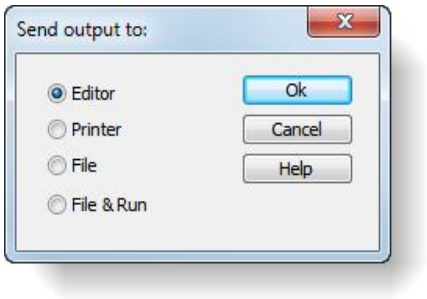


Figure 218: Select output destination

Cleaning Up The Hit List

Before creating a report of all the quotations found by the query, you have the option to remove entries from the hit list. You can remove unwanted hits from the list using the erase button right next to the printer button. You could, of course, reformulate your query to improve the precision.

This is how you clean up the hit list:

- Select an unwanted quotation in the hit list.
- Click the **Erase** button (see left).

Another Example Using A Proximity Operator

- If not already open, select **Help / Quick Tour / Load "Children & Happiness Stage II"** to open the sample file.

For example, we can take a look at the code "*def happiness: fulfillment*" (respondents who define happiness as fulfillment) and inspect whether the responses are different dependent on whether someone has children or not.

- Double-click on the family "*def happiness: fulfillment*".
- Double-click on the code "*#fam: has children*". T
- Select the COOCCUR operator.

The results for this query are shown in the result pane. The number of results is shown in the bottom left corner of the window. To display the results in context, click on each quotation.

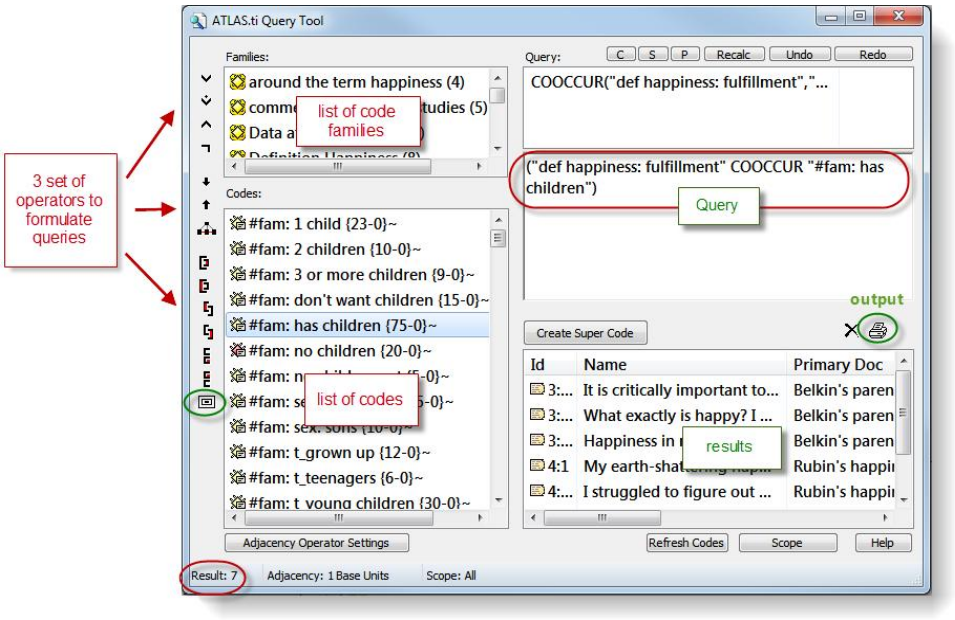


Figure 219: Query tool window

- To create an output of these results, click on the printer button.

Let's now compare whether we get different results if we select respondents who do not have children:

- Click on the button **C** (CLEAR) at the top of the query tool.
- Double-click on the family "*def happiness: fulfillment*".
- Double-click on the code "*#fam: no children*".
- Select the *COOCCUR* operator.

The result pane shows 1 quotation.

Super Codes

"Intelligent" Super Codes compute their quotations "on demand".

Super Codes are a convenient way to store queries. Super Codes are very similar in look and feel to normal codes, with one important difference: instead of "hardwired" connections to quotations, Super Codes store a query to compute their virtual references whenever needed.

They "automatically" change their behavior during the course of theory building. If you have a Super Code based on a query like

(Code A | Code B) COOCCUR Code C

and you add or delete quotations linked to either Code A, B or C, then the quotations linked to the super code will automatically be adjusted.

Super Codes can be clicked on in the code list like any other code and they will display their quotations in an identical way.

Normal codes in comparisons are "hard-wired" to their quotations.

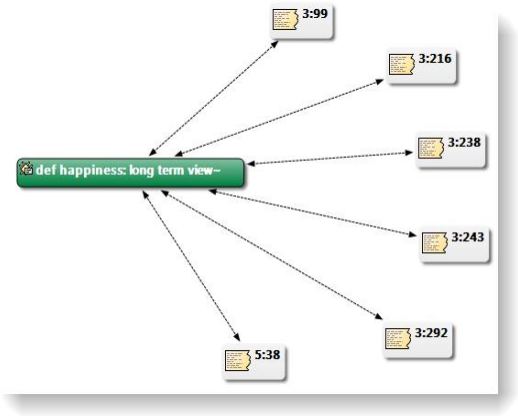


Figure 220: Codes are hard-wired to their quotations

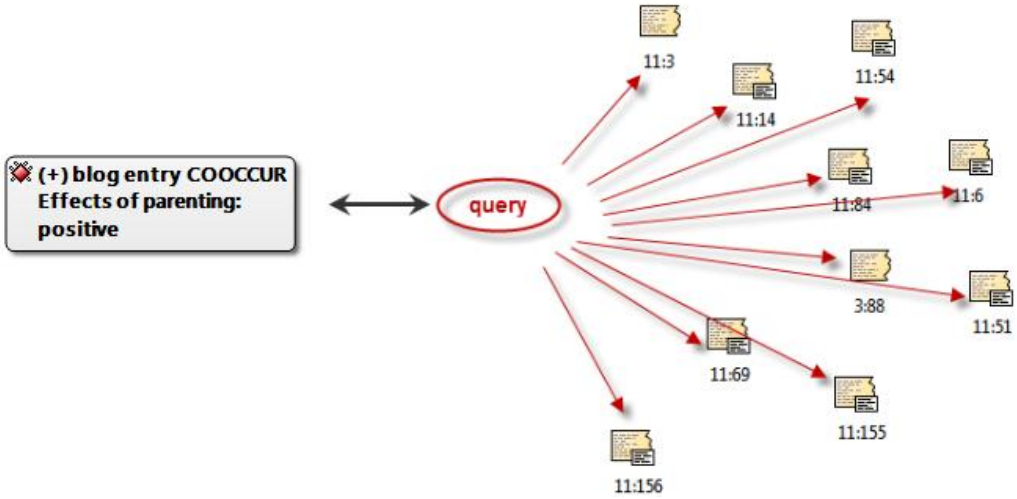


Figure 221: Super codes are linked to quotations via a query

Super codes are displayed in the Code Manager just like regular codes and can be recognized either by a red text color or by their red symbol, if images are switched on in the Views menu. The list of quotations associated with the Super Code can be displayed with a double-click, just as for any other code. Frequencies (density) are only indicated if you activated it, e. g. with a double-click in the Code Manager. If you start a new session, an asterisk (*) replaces the frequency count. The reason for this is that a Super Code is dynamic and its density/frequency count changes as soon as you modify any of the codes contained in the query of the Super Code. For the same reason, Super Codes are *not* displayed in the margin area. There is the possibility to create a regular code from a Super Code (see "Snapshot Codes").

Super Codes can be used in code families, Network Views, and, last but not least, as powerful operands in queries, allowing you to incrementally build complex queries.

Creating Super Codes

To create a Super Code, you must have already constructed a query using the Query Tool which is displayed in the term stack. Note that because Super Codes are "intentional," you can also create a valid and useful Super Code with an empty results list (which might well change in a later stage of your analysis).

Click the "Super-Code" button in the query tool between the feedback pane and the result pane.

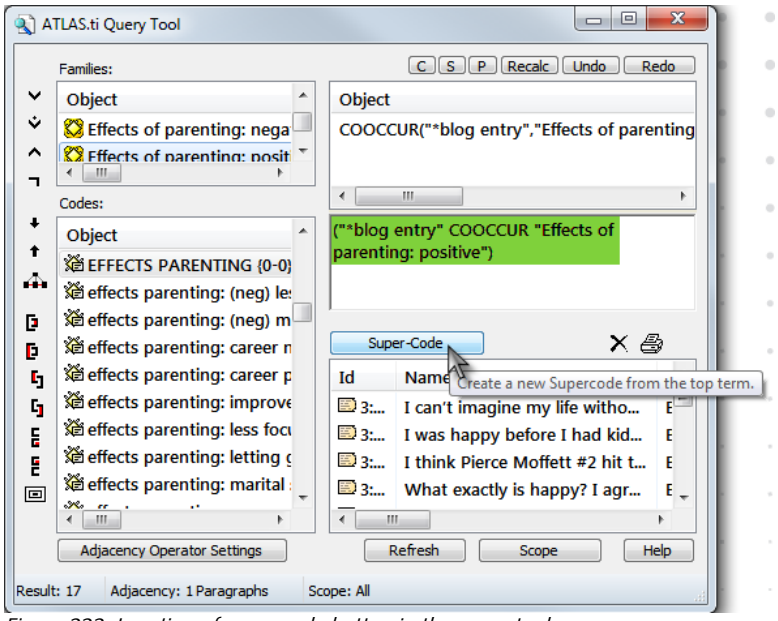


Figure 222: Location of super code button in the query tool

Enter a name for the new Super Code or accept the default name created from the query expression. Click **OK**.

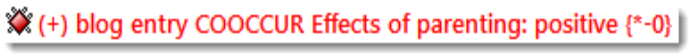


Figure 223: Display of super codes in the Code Manager

The newly created Super Code immediately appears in the list of codes and can be used for new queries (and Super Codes) right away. Its icon and code name are red.

You can access and edit the query later (see "Editing a super code Query," but the notation that is used in the edit query window is not so easy to understand. Therefore it is advisable that you enter the query into the comment field of the super code. You can copy and paste it from the feedback pane into the comment field.

Creating Super Codes In The Code Manager

You can also create super codes using an OR combination in the Code Manager:

- Select multiple codes in the Code Manager.
- Select the menu option **Codes / Miscellaneous / Create Super Code.**
- Enter a name for the super code and click **OK**.

Editing A Super Code Query

- If you want to edit the query a super code is based upon, highlight the super code in the Code Manager and select **Miscellaneous / Edit Query** from the menu.

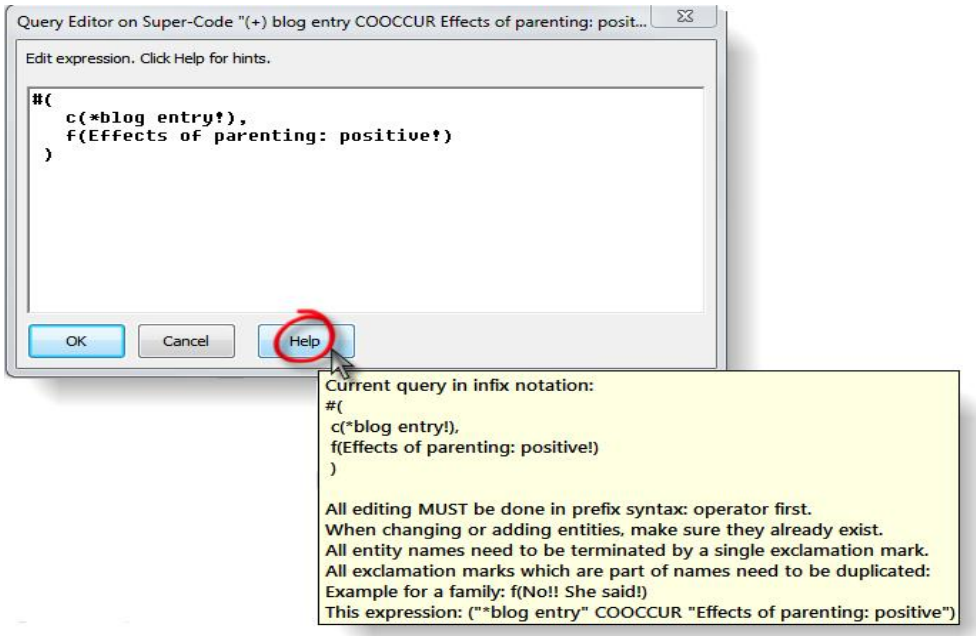

Query Editor on Super-Code "(+) blog entry COOCCUR Effects of parenting: posit...
Edit expression. Click Help for hints.
#(
c(*blog entry!),
f(Effects of parenting: positive!)
)
OK
Cancel
Help
Current query in infix notation:
#(
c(*blog entry!),
f(Effects of parenting: positive!)
)
All editing MUST be done in prefix syntax: operator first.
When changing or adding entities, make sure they already exist.
All entity names need to be terminated by a single exclamation mark.
All exclamation marks which are part of names need to be duplicated:
Example for a family: f(No!! She said!)
This expression: ("*blog entry" COOCCUR "Effects of parenting: positive")

Figure 224: Editing a super code

- Click on the **Help** button for instructions.

Auto-Optimization Of Super Code Queries

In order to take into account quotations that were manually removed from the hit list in the result pane of the Query Tool, the system must modified the query before a Super Code is created. Otherwise it would display the full set retrieved by the original query. To accomplish this task, a "suppressor" code is created, which refers to the quotations removed from the hit list.

Example: The original query "All quotations coded with "Code A" OR "Code B") yields 4 quotations 1:1, 1:2, 1:3 and 3:1. From the hit list, quotations 1:1 and 1:3 are removed. The query is now modified by creating a new "suppressor" code **Q1 referencing 1:1 and 1:3. The original query is modified as follows:

(Code A OR Code B) AND NOT (**Q1)

And returns exactly what you want: quotations 1:2 and 3:1.

Both the Super Code's and the suppressor code's automatically created comment reflect their mutual dependency.

A suppressor code cannot be deleted before the referring Super Code is deleted.

What You Cannot Do With Super Codes

As Super Codes are not directly associated with quotations, certain restrictions apply.

Super codes cannot used for manual coding.

Coding: The most important constraint is that you cannot associate them with quotations directly. Therefore, Super Codes are not presented when doing "code by list," and drag & drop onto data selections is prohibited.

Merging: Code Merge operations including Super Codes are also not possible.

Prevent Cycles: If you created a Super Code whose query contains a reference to a code family, you cannot assign this Super Code to the code family later. This would create a cyclic structure and is therefore disallowed.

Snapshot Codes

A Snapshot Code is a normal code that records the current state of a Super Code by way of "hard-wired" links to the derived quotations. By creating a snapshot from time to time, you can analyze the development of a Super Code.

Unlike the Super Code, a code created by the snapshot is displayed in the margin area and can be used for further coding. The default snapshot code names are suffixed with [SN<number>].

How To Create A Snapshot Code

- Select a Super Code in the Code Manager.
- From the **Codes / Miscellaneous** menu, select option **Create Snapshot**.
- The newly create code appears in the Code Manager. The code icon turns yellow, the characters of the code name appear in black and the post-fix [SN1 + a consecutive number] is added to the name. The frequency count is permanently displayed as the snapshot code is no longer dynamic.

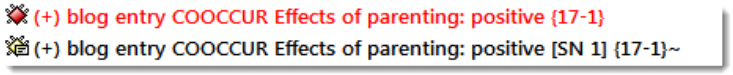


Figure 225: A super code and its snapshot

Restricting Code Queries To Sub Groups

You can specify the documents that are to be considered in a query. By default, the query's "document universe" is *all* **PDs** currently filtered in the HU Editor. Clicking Scope opens another window that shows the PDs in the lower left pane and the **PD families** in the upper left. As PD families can be looked at as nominal variables, it is easy to preselect "all interviews with male interviewees aged between twenty and thirty from small towns.

A restricted set of operators is offered (note that only Boolean operators make sense here) and can be used to construct scope selection queries in much the same way as the query itself.

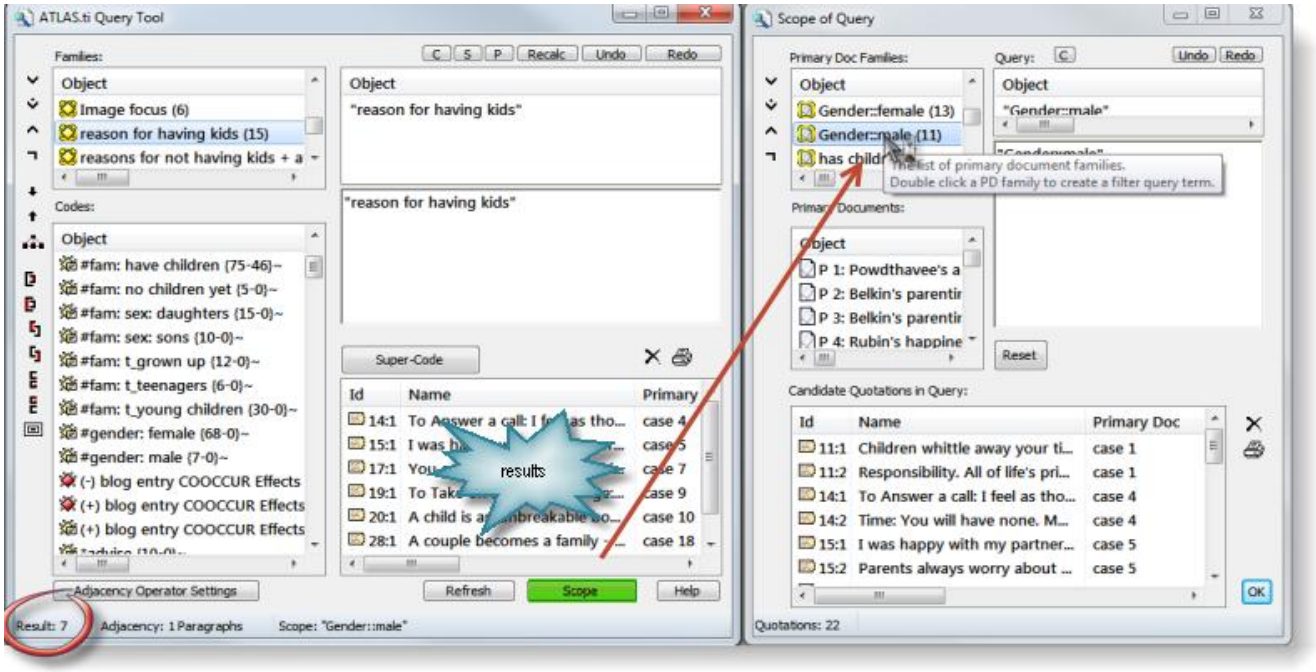


Figure 226: Restricting a search to a sub group of data

Figure 226 above shows a simply query for the code family "reasons for having kids".

The scope is set to the PD family "gender::male". This means that the result pane is filtered only displaying quotations from male respondents. This results in 7 quotations, which can be seen at the bottom left of the query tool window.

Double-clicking on the PD Family "gender::female" in turn yields 10 quotations. Further comparisons could be by educational level, marital status, whether someone is a parent or not, etc.

For the results always look at the result pane of the query tool window. The bottom pane of the Scope of Query window shows all quotations from the selected document group. In mathematical terms, the result pane in the query tool window shows the intersection between the code query and all quotations from a particular document group.

You can also combine a number of PD families or individual PDs using Boolean operators in the Scope of Query Window, or by creating Super PD families (see "Combining group of documents to restrict searches" below or "Creating Super Families as Global Filters."

A scope is not stored as part of a Super Code's query specification. When you process the query of a Super Code later, the complete data base is queried by default.

Combining Group Of Documents To Restrict Searches

A combination of document families like all females in age group II (31-40) from New York is clicked in the same way as you click a code query. You first select two or more PD families and then you select one or more operaators:

- Create a query.
- Click on the **Scope** button.
- To create the above described subgroup, you would double click on the three families: female, age group II and City::New York. Then you click on the **AND** operator twice.

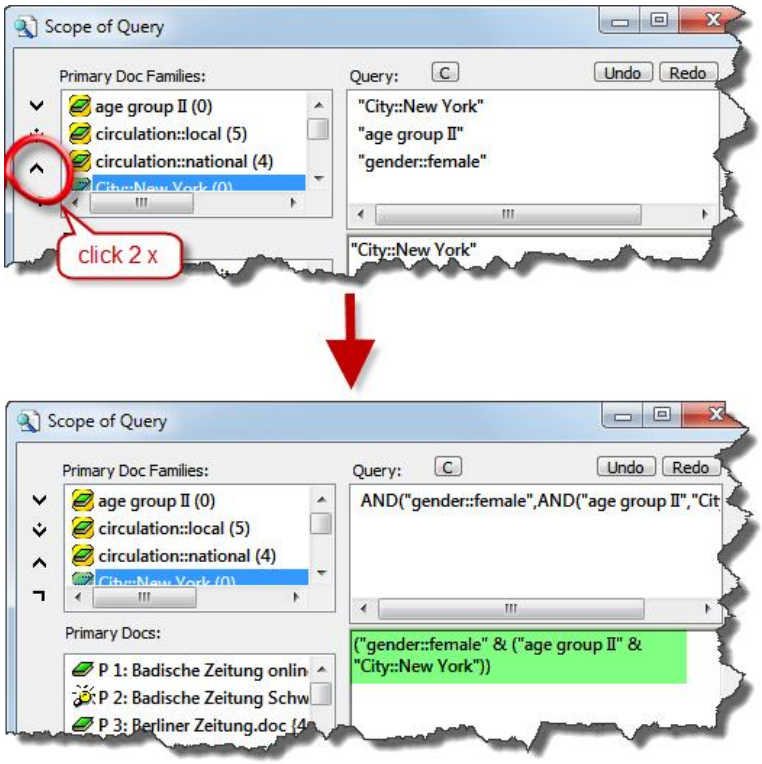


Figure 227: Combining document families to set the scope

If you need certain combinations of document families more often, then you can create so called **Super Families**. How this works is described in the next section.

Super Families

Just like Super Codes, Super Families re-calculate their members "on demand."

Super Families follow the same underlying logic as Super Codes (cf. "Super Codes"). They are constructed by combining families or already existing super families.

Their members are determined *dynamically* whenever you activate a Super Family. Super families can be created based on primary document families, code families and memo families. Below an example is shown for primary document families. Creating super code or super memo families works in the same way.

Using Super Families

Example

You are working in the Customer Department of an airline and have been given the task to analyze customer complaints. As basis for your analysis, you

have a set of documents dealing with customer complaints about domestic flights and a set of documents dealing with customer complaints about international flights. Your company is particularly interested in differences between domestic and international flights and differences between business and leisure travelers. Important factors to analyze might be gender, level of income, and frequent-flyer status.

The matrix below is based on the four customer groups:

Domestic Flights	International Flights
Business traveler	Business traveler
Leisure traveler	Leisure traveler

To represent these four groups in ATLAS.ti, you create primary document families. Next, you code the data. For example, you may use codes such as "punctuality," "general service," "in-flight services," and "human interaction" to describe complaints customers had.

After coding, you can use the query tool in combination with the scope function to find out how the four groups differ in terms of their complaint behavior.

Open the Query Tool.

Double-click on the code containing the information you are interested in, e.g., complaints about 'in-flight services.'

Click **Scope** to restrict the search to a specific sub groups of your data, e. g. business travelers on domestic flights:

Double-click on the PD family '*Domestic Flights*' and on the PD family '*Business Traveler*' and combine them using the **AND** operator.

The result pane of the Query Tool now displays all quotations related to complaints about in-flight services from business travelers on domestic flights.

In order to compare the four groups in regard to different types of complaints, the steps above need to be repeated.

Having frequently used combinations of families available as Super Families eases such tasks considerably. Below, a step-by-step instruction on how to create Super Families is provided.

How To Create A Super Family

An easy way to create super families is via the side panels in the managers. This has been explained in detail in the section "Creating Super Families as Global Filters." However, here only the operators AND and OR can be used to create super families. The super family tool (see Figure 228), offers a few more options.

Open a Family Manager and click the Super Family button (see left), or select **Families / Open Super Family Tool** from the menu.

The Super Family Tool opens:

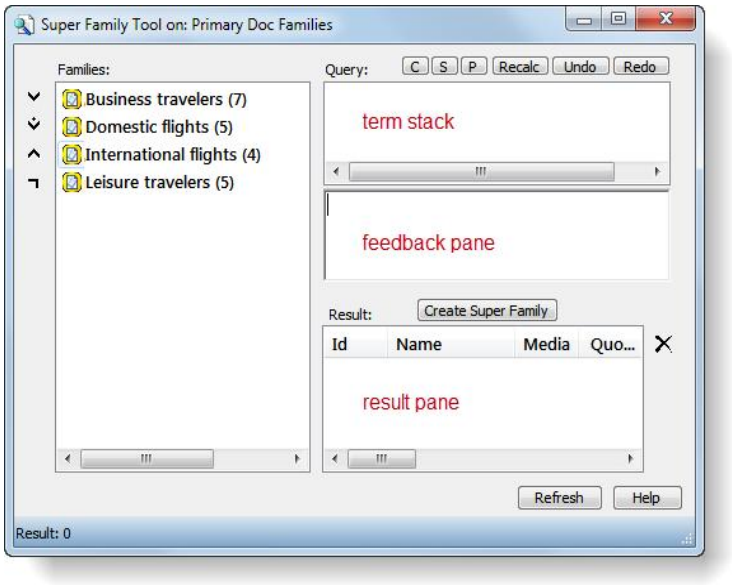


Figure 228: Super Family Tool for Primary Document Families

The Super Family Tool is like a reduced Query Tool (see "Query Tool" for details). In the left pane, the available families are listed. For our example above, there are four regular families. The panes on the right-hand side (from top to bottom: the term stack pane, the feedback pane and the result pane) display information once you begin to create a combination of families. The buttons above the stack pane are described in the context of the Query Tool (see "Stack Management").

To create a Super Family combining two families (such as "domestic flights" and "business traveler"), do the following:

Double-click on family '*Domestic flight*'. It is displayed in the stack pane.

Double-click on the family '*Business travelers*'. It is "pushed" on top of the stack. Now you have two families on the stack that can be combined with one of the operators.

In order to create a group of all business travelers on domestic flights, click the **AND** operator. This operator "fetches" the two families from the stack and creates the combined expression.

The stack now contains the query expression in prefix notation, the feedback pane shows the infix notation of the query, which is better to read and understand. The resulting items are displayed in the results pane.

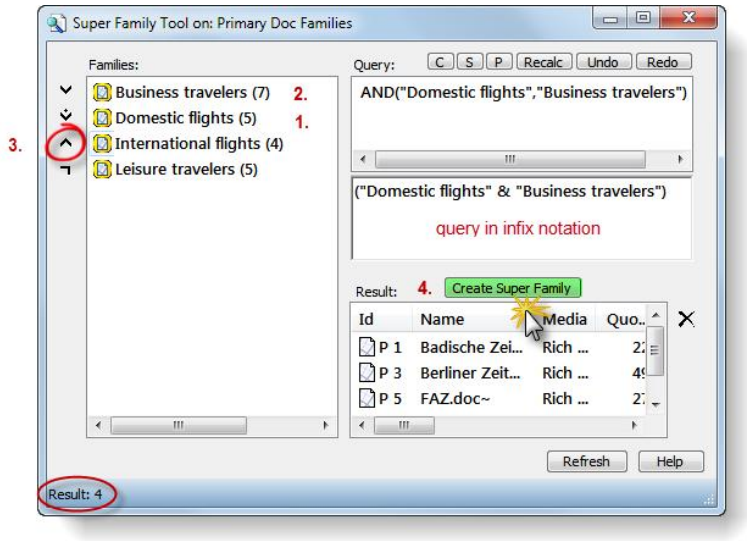


Figure 229: Creating a super family

In the results pane, those members of the families are listed (either PDs, codes, or memos) that match the current query.

Click the **Super Family** button to store the query as a Super family.

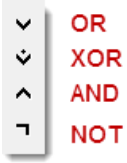
You are prompted for a name. Accept the default or enter a new name, for instance "*Business travelers on domestic flights*".

The new Super Family is displayed in the family browser with a red version of the family icon. If icons are turned off, the list entry is colored red.

Possible Family Combinations

You can combine families in numerous and complex ways to form Super Families. In the following section, some common combinations are presented. Once you are familiar with the tool, you can venture out and try out more complex combinations.

For the following descriptions of the four operators, looking at the Venn diagram (see "Semantic Operators") may be helpful.



The Super Family tool offers four operators that can be used to combine families. The four operators are also known as Boolean operators: OR, XOR, AND, and NOT.

Combining two families with the OR operator yields those items that are members of one or both families. Combining two families with the AND operator yields only those members belonging to both families.

Combining two families using the XOR operator yields all members belonging to any of the families less those that are in both families.

The NOT operator inverts an existing family. By negating a family *female*, you could simply create a Super Family that, presumably, includes all males. The NOT operator, as well as all other operators, does not only work on families but also on Super Families or in arbitrary partial queries as in "NOT (A OR B)".

Combining Families Using Boolean Operators

Combining families to build Super Families is essentially the same as formulating code- and code family-based queries in the ATLAS.ti Query Tool. The sequence of entering a query to create a Super Family is as follows: First, select all families that you want to combine, and then select the operator(s):

Intended Query	What to click	Display in query feedback pane
Members family A or family B (or both)	Family A, Family B, OR	("Family A" | "Family B")
Members that exclusively belong to either family A or family B	Family A, Family B, XOR	("Family A" || "Family B")
Members that belong to both family A and family B	Family A, Family B, AND	("Family A" & "Family B")
Members that do not belong to family A	Family A, NOT	NOT "Family A"

Combining More Than Two Families

In order to combine more than two families, you can use a simple query to build upon, or you can click it as one sequence. For the beginner, it is recommended to build up to a more complex query step-by-step.

CREATING A COMPLEX QUERY STEP-BY-STEP

Let's assume you want to create a Super Family containing all female respondents under the age of 25, living in New York. This means you want to generate a Super Family based on the overlap of the three families gernder::*female*, age group::*under 25*, and residence::*New York*. We start by combing the first two families "female" and "under 25". If you had such families, you would:

- Double-click family "*gender::female*".
- Double-click family "*age group::under 25*".
- Select operator **AND**.

The stack pane and the query pane now contain the following terms:

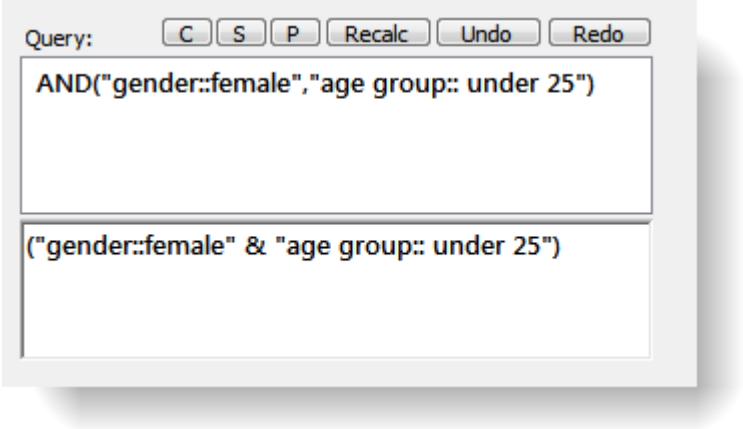


Figure 230: First step in building a more complex query step-by-step

The display in the query feedback pane matches more or less the way we would express the query in everyday language. In the figure above, one item is displayed in the stack, namely the query we just entered. We can now incrementally build a more complex query from this query.

Double-click on the family "*residence::New York*". This pushes the family onto the stack, which now contains two items ready to be combined.

You can use the Happiness Stage II sample project to create your own combinations based on the PD families that were imported with the survey data. For example, you can try to create a super family that contains all male respondents that have children and are married. This combination applies to two respondents, P14 and P17.

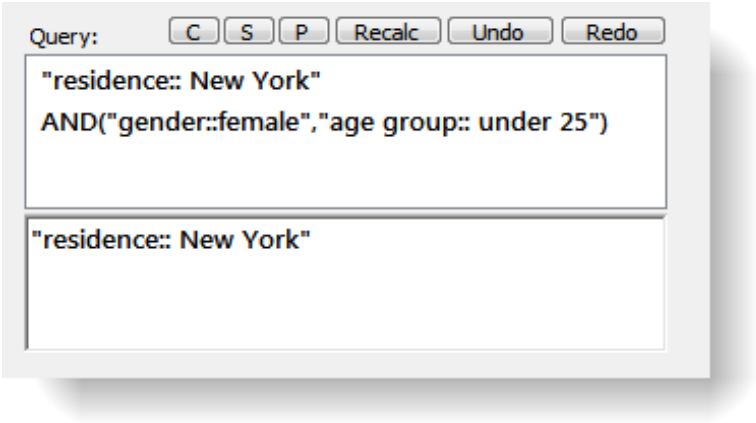


Figure 231: Clicking a more complex query - step 2

The feedback pane always displays the item that is on top of the stack. The topmost item on the stack has either been entered or is the result of applying an operator.

To yield all documents that match all three requirements: female, under 25, and from New York, click the **AND** operator again.

The stack and query feedback pane now looks as follows:

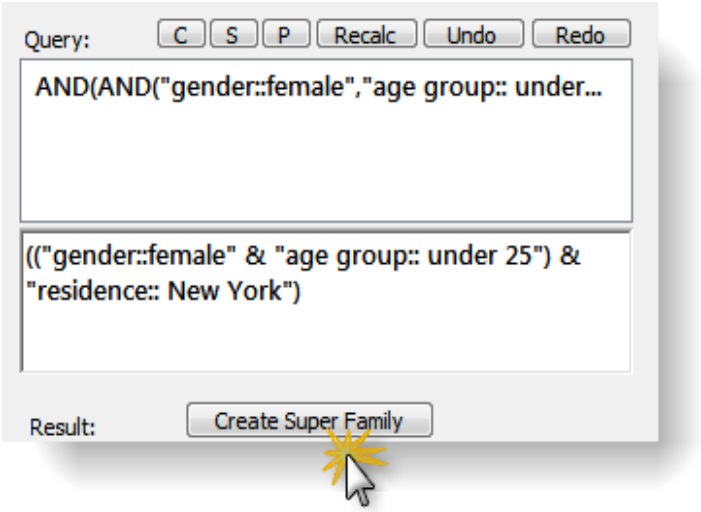


Figure 232: Clicking a more complex query - step 3

If these are all the attributes that you want to combine, click on the **Super Family** button. If you want to combine a fourth or fifth attribute, continue as described above.

CREATING A COMPLEX QUERY AS A SEQUENCE

When creating a complex query in one sequence, the rule is to select all families first, followed by the appropriate number and type of operators. Using the same example as above, the sequence would be as follows:

- Double-click on the family "*gender::female*."
- Double-click on the family "*age group::under 25*."
- Double-click on the family "residence:New York."
- Select the operator **AND**.
- Select the operator **AND** again.

Further examples:

If you add the NOT operator to the above query, you have create a family combination not containing female respondents, under the age of 25, living in New York.

As an exercise: how would you create a family combination yielding males over 25 not living in New York?

Solution: Combine families "gender::female", "age group::under 25" and "residence::New York" using the OR operator, then negate using NOT. The resulting query looks like this: *NOT ("gender::female" | ("age group:: under 25" | "residence:: New York"))*

Another option is to click the sequence:

- age group:: under 25
- residence:: New York
- OR
- NOT
- gender::male
- AND

The resulting query looks like this: *(NOT ("residence:: New York" | "age group:: under 25") & "gender::male")*

Create A Snapshot From A Super Family

Snapshots are "hard-wired" versions of super families.

A snapshot creates a "hardwired" standard family containing the items derived from a Super Family as its members.

Example: By creating a snapshot from Super Code family Chemistry, a new (standard) family is created which includes all codes that the Super Family has as its members at this time. While a Super Family reflects any changes in regard to the members of any of its combined families, a snapshot will not change. This is identical to creating snapshot from Super Codes.

Snapshots are a means to audit the process of your analysis. By comparing Super Families with previous snapshots, you can see how and in which direction your thoughts have developed.

To create a snapshot family, select a super family in a family manager. Then select the menu option **Miscellaneous / Create Snapshot**.

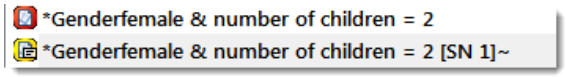


Figure 233: Super family and its snapshot

By default the post-fix (SN + a consecutive number] is added to the name.

Additional Query Tool Functions

Stack Management

Several functions are available in pocket calculator style as a series of buttons. Other functions can be activated by context menus opened in one of the list panes.

Figure 234: Query tool stack functions

Clear the complete term stack of expressions.

Swaps the two top elements of the stack. Use if you mix up the input order.

"**Push**" a copy of the topmost element onto the stack (in other words: duplicate it). This is a useful feature if you need to replicate a complex expression.

If you created new coding that affect the current query while the Query Tool is open, you have to click **Recalc** to reprocess the query.

Undo removes the topmost entry from the stack. This is convenient if you clicked on the wrong code.

Redo pushes the last removed entry back onto the stack.

The functions above are also available from the context menu of the term stack pane.

More Functions

Context Menus

Several context menus are available in the various panes of the Query Tool that complement the functions available via the buttons. Most items in the context menus serve an informational need.

The *code family pane*'s context menu has a single command: **Display Codes**. Select to view the member codes of the selected code family.

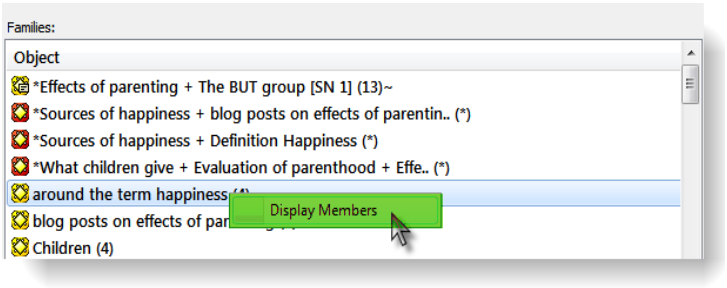

Families:
Object
*Effects of parenting + The BUT group [SN 1] (13)~
*Sources of happiness + blog posts on effects of parentin.. (*)
*Sources of happiness + Definition Happiness (*)
*What children give + Evaluation of parenthood + Effe.. (*)
around the term happiness
Display Members
blog posts on effects of par
Children (4)

Figure 235: Context menu of the code family pane

The *code pane*'s menu offers information about the selected code **neighbors**, the **term** (i. e., query) if it is a Super Code, **embedding**, **embedded** and **co-occurring** codes.

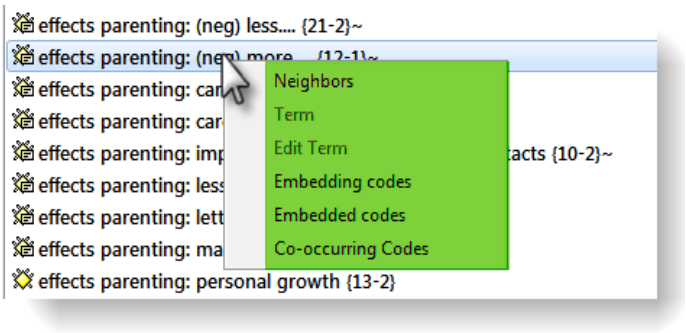


Figure 236: Context menu of the codes pane

The context menu for the *term stack pane* resembles the stack function buttons described above.

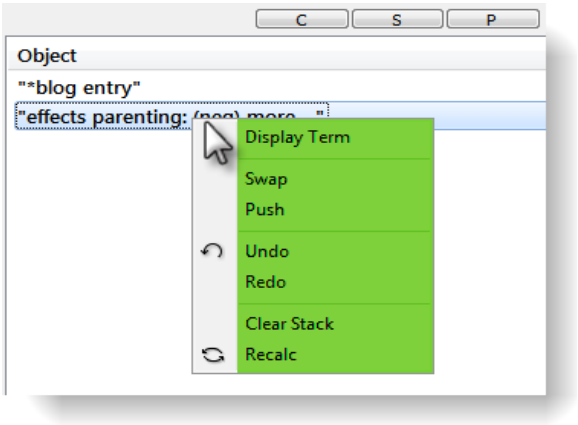


Figure 237: Context menu of the term stack pane

The *results pane's* menu offers information about the **neighbors** (codes, other quotations, memos), **embedding**, **embedded**, or **co-occurring codes** of a selected "hit." A further option offers the possibility to **remove** the selected hit from the results list, to create a report or to create a PD family based on all PDs included in the results.

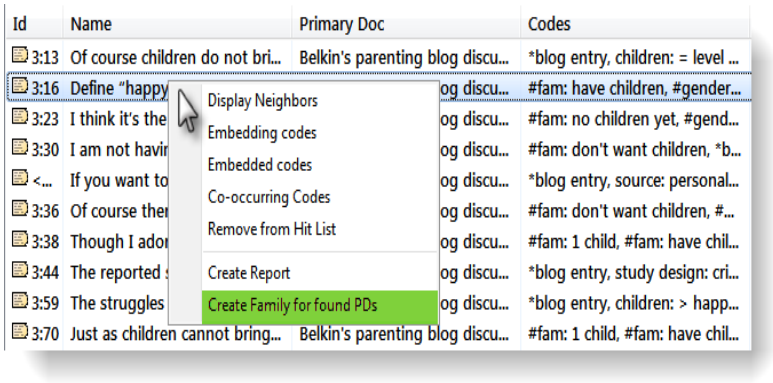

Id
Name
Primary Doc
Codes
3:13 Of course children do not bri... Belkin's parenting blog discu... *blog entry, children: = level ...
3:16 Define "happy ... og discu... #fam: have children, #gender...
3:23 I think it's the ... og discu... #fam: no children yet, #gend...
3:30 I am not havir ... og discu... #fam: don't want children, *b...
<... If you want to ... og discu... *blog entry, source: personal...
3:36 Of course ther ... og discu... #fam: don't want children, #...
3:38 Though I ador ... og discu... #fam: 1 child, #fam: have chil...
3:44 The reported ... og discu... *blog entry, study design: cri...
3:59 The struggles ... og discu... *blog entry, children: > happ...
3:70 Just as children cannot bring... Belkin's parenting blog discu... #fam: 1 child, #fam: have chil...
Display Neighbors
Embedding codes
Embedded codes
Co-occurring Codes
Remove from Hit List
Create Report
Create Family for found PDs

Figure 238: Context menu of the results pane

The last option is very useful in the search of patterns and typologies in your data. It is also of good service when working with images as in a lot of cases the image itself is the unit of analysis.

Code Cooccurrence Tools

The Code Cooccurrence tools allows to ask a different type of questions. Using this tool, you can ask ATLAS.ti to show you all codes that cooccur across all of your primary documents. The result is a cross-tabulation of all codes.

As compared to the Query Tool where the user has to determine and select codes or code families and the appropriate operator, the Co-occurrence Explorer by default looks for all codes that co-occur in the margin area combining the operators WITHIN, ENCLOSES, OVERLAPS, OVERLAPPED BY and AND.

Instead of cross-tabulating all project codes, it is often more meaningful to apply filters for certain codes and documents in order to concentrate on a more specific set of concepts. The output of the Code Cooccurrence Tools can be displayed in a tree view or as a data matrix. Below you see an example for both.

How To Open The Code Co-occurrence Tools

Select **Analysis / Code Cooccurrence Tree** or **Code Cooccurrence Table.**

The Code Co-occurrence Tree

When running the tree explorer, you only see the root objects when it opens. Open the branches by clicking on the **+** sign to see the the cooccuring codes on the first level and the associated quotations on the second level.

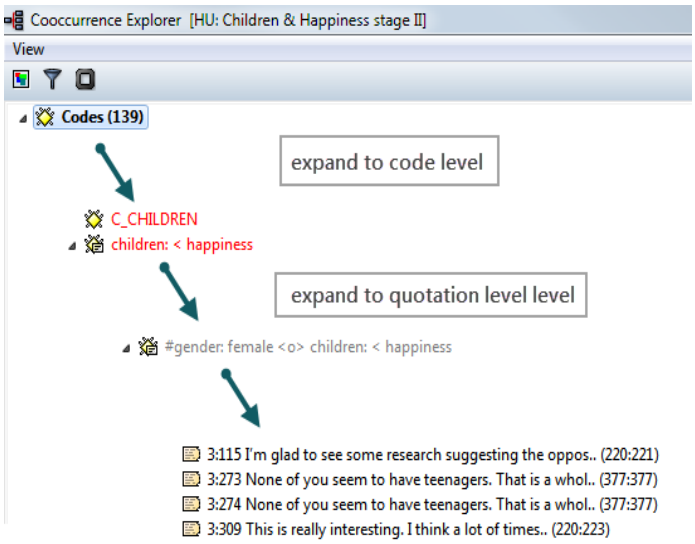

Cooccurrence Explorer [HU: Children & Happiness stage II]
View
Codes (139)
expand to code level
C_CHILDREN
children: < happiness
expand to quotation level level
#gender: female <o> children: < happiness
3:115 I'm glad to see some research suggesting the oppos.. (220:221)
3:273 None of you seem to have teenagers. That is a whol.. (377:377)
3:274 None of you seem to have teenagers. That is a whol.. (377:377)
3:309 This is really interesting. I think a lot of times.. (220:223)

Figure 239: Expanding to code and quotation level in the tree explorer

The same option is available for primary documents. If you expand the branch for Primary Docs, you can see which codes have been applied to this PD. Further, you can expand to the quotation level to look at the material coded there.

In the above example, you can immediately see all answers given by female blog writers about their thoughts why having children means less happiness.

In the section "Explaining frequency count and number of quotations listed" it is explained how to interpret the listed quotations. If you want a count of the number of quotations that co-occur, you need to run the table explorer (see below).

The Code Co-occurrence Table

The Co-occurrence Table Explorer in comparison to the Tree Explorer shows the frequencies of co-occurrence in form of a matrix similar to a correlation matrix that you may know from statistical software.

To produce such a table, select **Analysis / Code Cooccurrence Table.**

Next you need to select the codes for the column and for the rows as shown in Figure 240:

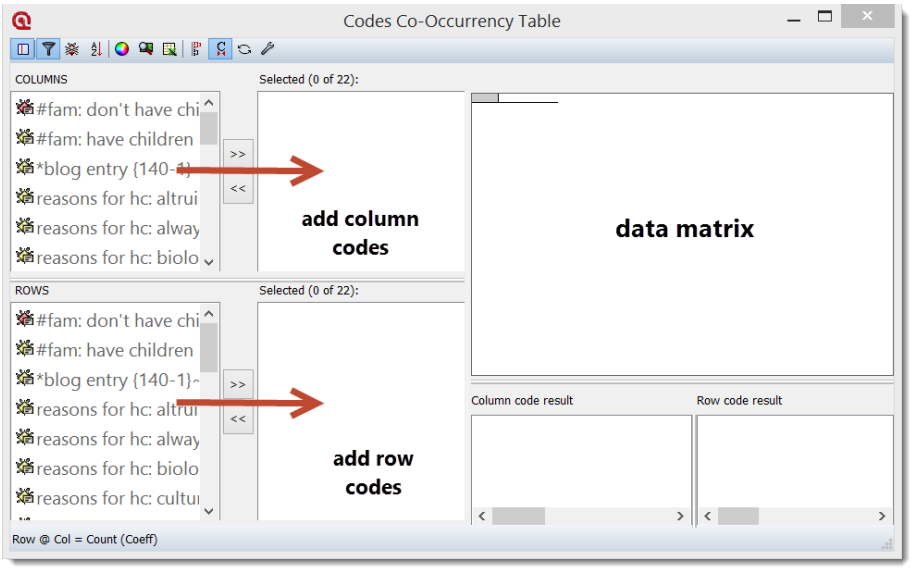
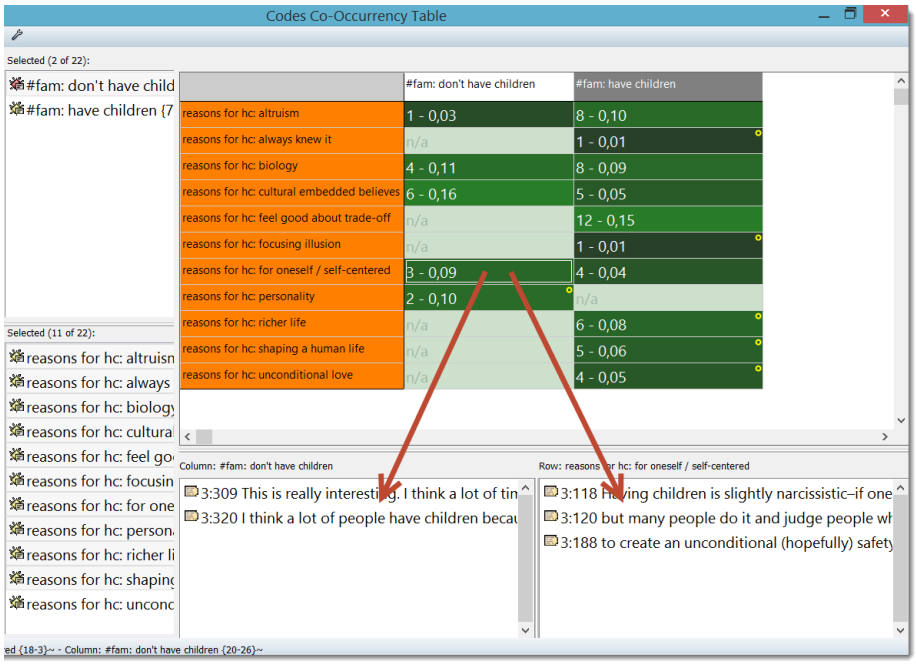


Figure 240: Code Cooccurence Table: ready to be filled in

The results are displayed immediately:


Codes Co-Occurrency Table
Selected (2 of 22):
#fam: don't have child
#fam: have children {7
#fam: don't have children
#fam: have children
reasons for hc: altruism
1 - 0,03
8 - 0,10
reasons for hc: always knew it
n/a
1 - 0,01
reasons for hc: biology
4 - 0,11
8 - 0,09
reasons for hc: cultural embedded believes
6 - 0,16
5 - 0,05
reasons for hc: feel good about trade-off
n/a
12 - 0,15
reasons for hc: focusing illusion
n/a
1 - 0,01
reasons for hc: for oneself / self-centered
3 - 0,09
4 - 0,04
reasons for hc: personality
2 - 0,10
n/a
reasons for hc: richer life
n/a
6 - 0,08
reasons for hc: shaping a human life
n/a
5 - 0,06
reasons for hc: unconditional love
n/a
4 - 0,05
Selected (11 of 22):
reasons for hc: altruisn
reasons for hc: always
reasons for hc: biology
reasons for hc: cultura
reasons for hc: feel go
reasons for hc: focusin
reasons for hc: for one
reasons for hc: person
reasons for hc: richer li
reasons for hc: shapin
reasons for hc: unconc
Column: #fam: don't have children
3:309 This is really interesting. I think a lot of tin
3:320 I think a lot of people have children becau
Row: reasons for hc: for oneself / self-centered
3:118 having children is slightly narcissistic–if one
3:120 but many people do it and judge people wh
3:188 to create an unconditional (hopefully) safety
ed {18-3}~ - Column: #fam: don't have children {20-26}~

The table shows 3 hits. In the result panes for the column and row codes you see that a total of 5 quotations are involved in this query: 2 quotations of the column code and 3 quotations of the row code.

Figure 241: Code Co-occurrence Table: filled in

Double-click on a cell. The corresponding row and column codes are displayed in the two panes at the bottom of the window. This is further explained in the section "Explaining frequency count and number of quotations listed."

Click on an entry to see the quotation displayed in context.

n/a

The entry **n/a** (= not applicable) indicates that the pair of codes does not co-occur anywhere in the data material .

Explaining Frequency Count And Number Of Quotations Listed

The co-occurrence frequency does not count single quotations it counts co-occurrence „events". If a single quotation is coded by two codes, this would count as a single co-occurrence. In case of overlap, thus when each of the two quotations is coded by one of the codes, this also counts as a single co-occurrence. In the cell drop down list you will find both quotations. The drop down list will display an ordered list of all quotations for all co-occurrence events for the pair of codes. In the following an example is shown an explained:

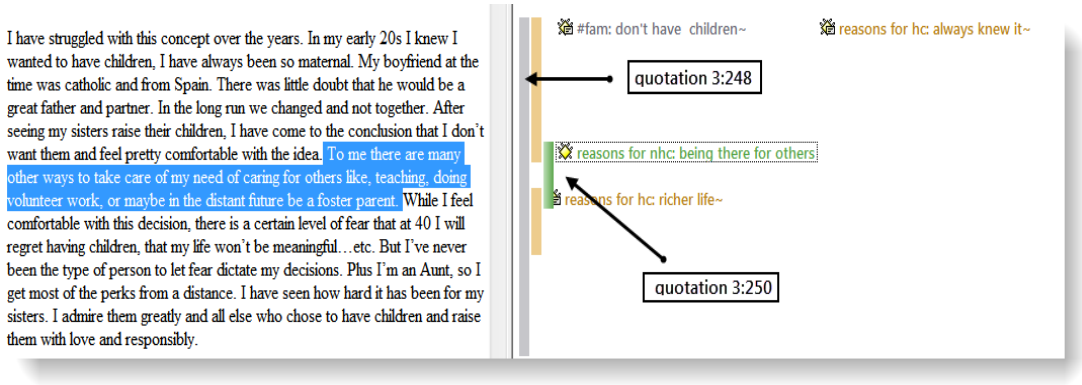

I have struggled with this concept over the years. In my early 20s I knew I wanted to have children, I have always been so maternal. My boyfriend at the time was catholic and from Spain. There was little doubt that he would be a great father and partner. In the long run we changed and not together. After seeing my sisters raise their children, I have come to the conclusion that I don't want them and feel pretty comfortable with the idea. To me there are many other ways to take care of my need of caring for others like, teaching, doing volunteer work, or maybe in the distant future be a foster parent. While I feel comfortable with this decision, there is a certain level of fear that at 40 I will regret having children, that my life won't be meaningful…etc. But I've never been the type of person to let fear dictate my decisions. Plus I'm an Aunt, so I get most of the perks from a distance. I have seen how hard it has been for my sisters. I admire them greatly and all else who chose to have children and raise them with love and responsibly.
#fam: don't have children~
reasons for hc: always knew it~
quotation 3:248
reasons for nhc: being there for others
reasons for hc: richer life~
quotation 3:250

Figure 242: Explaining the relation between frequency of coocccurence and number of quotations

Quotation 3:248 and quotation 3:250 coded with "reasons fro nhc: being there for otehrs" and "#fam: don't have children cooccur. Quotation 3:244 codes the entire blog, quotation 3:250 only a sentence within the post (see figure 270 below). Thus, there are tow quotations, but only one co-occurrences that are counted for the frequency count.

Toolbar

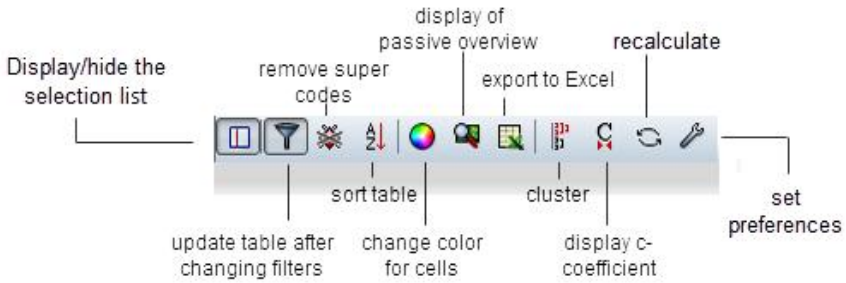


Figure 243: The Codes Co-occurrence Table toolbar

Cell Colors

Coloring helps in detecting co-occurrences. The following options are provided:

You can choose among three colors for the table cells: blue, red and green.

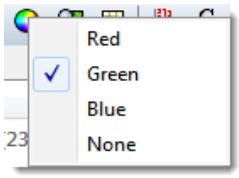


Figure 244: Set colors for table cells

To select a different color, click on the color button in the tool bar.

All cells showing that a co-occurance exist are colored with the selected color or none at all (see Figure 254). Different color intensities are used to indicate the strength of the association. The higher the frequency, the lighter the color.

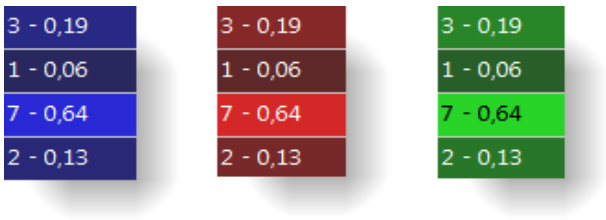


Figure 245: Three alternative colors and their shades

Passive View

If you just want to get feeling for potential patters in your data, try the passive view, which is a detached image that only shows colors.

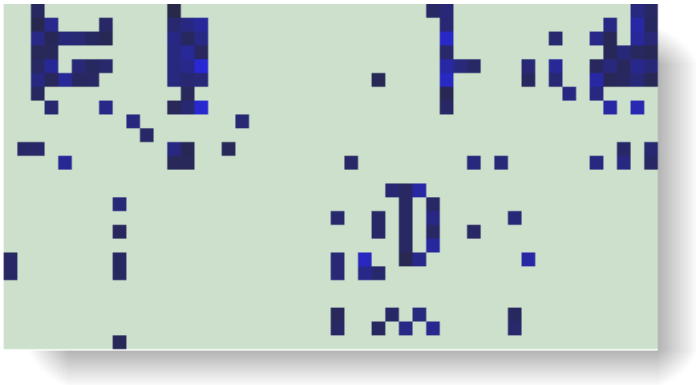


Figure 246: Example of a passive overview as an aid to detect pattern

Data Export

RTF (QUALITATIVE)

You can either export a list of the co-occuring codes, or the list including quotation IDs and names in form of an rtf file. The the full content of the quotations cannot be exported as this potentially results in very large outputs.

- To export the list of co-occuring codes, select **Codes / Output / Cooccurring codes.**
- Next you are asked whether to include the quotation lists (= ID plus name of the quotation.
- Next, select the output destination (Editor, File, Printer).

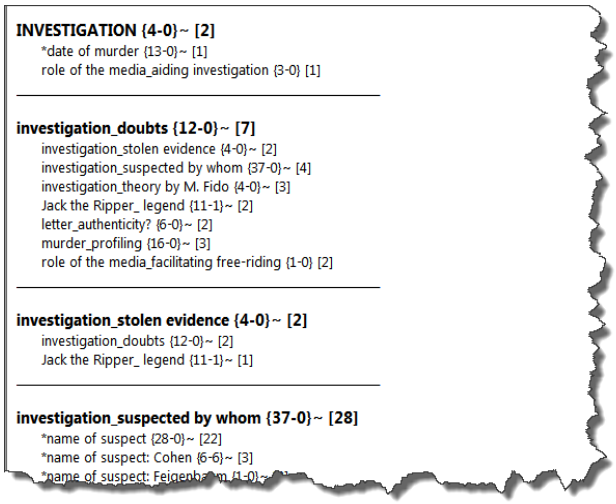

INVESTIGATION {4-0}~ [2]
*date of murder {13-0}~ [1]
role of the media_aiding investigation {3-0} [1]
investigation_doubts {12-0}~ [7]
investigation_stolen evidence {4-0}~ [2]
investigation_suspected by whom {37-0}~ [4]
investigation_theory by M. Fido {4-0}~ [3]
Jack the Ripper_ legend {11-1}~ [2]
letter_authenticity? {6-0}~ [2]
murder_profiling {16-0}~ [3]
role of the media_facilitating free-riding {1-0} [2]
investigation_stolen evidence {4-0}~ [2]
investigation_doubts {12-0}~ [2]
Jack the Ripper_ legend {11-1}~ [1]
investigation_suspected by whom {37-0}~ [28]
*name of suspect {28-0}~ [22]
*name of suspect: Cohen {6-6}~ [3]

Figure 247: List of cooccuring codes in rtf format

EXCEL (QUANTITATIVE)

You can either export the frequency counts of the c-coefficient. If the c-coefficient is activated, then the coefficient is included in the output; if not, the Excel table shows the frequency of cooccurrence.

To create an Excel table of either the frequency counts of the c-coefficients, click in the Excel button in the tool bar.

As output select destination **File & Run**.

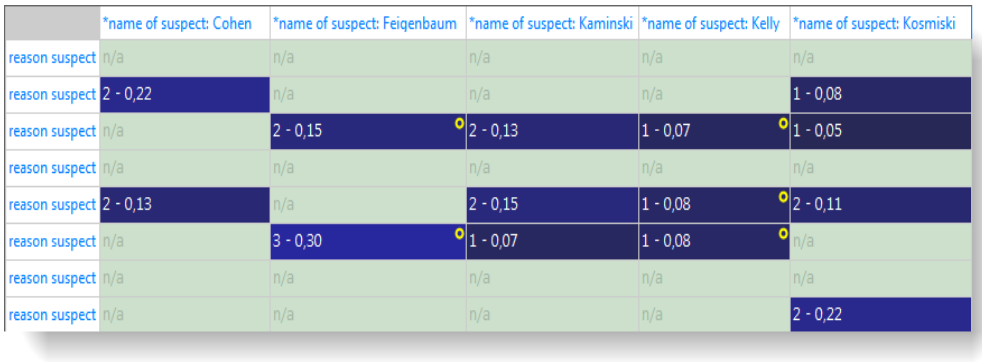
Save the file and wait for Excel (OpenOffice Calc) to be opened. Confirm the conversion of the data.

Clustering Quotations

If you want to count embedded quotations as only one count (compare "Embedding Operators"), select the *Cluster Quotations button in the tool bar (s*ee left).

C-Coefficient

In addition to the frequency count a so called c-coefficient can be displayed. You can display or hide it (see button to the left). The c-coefficient indicates the strength of the relation between two codes similar to a correlation coefficient.



	*name of suspect: Cohen	*name of suspect: Feigenbaum	*name of suspect: Kaminski	*name of suspect: Kelly	*name of suspect: Kosmiski
reason suspect	n/a	n/a	n/a	n/a	n/a
reason suspect	2 - 0,22	n/a	n/a	n/a	1 - 0,08
reason suspect	n/a	2 - 0,15	2 - 0,13	1 - 0,07	1 - 0,05
reason suspect	n/a	n/a	n/a	n/a	n/a
reason suspect	2 - 0,13	n/a	2 - 0,15	1 - 0,08	2 - 0,11
reason suspect	n/a	3 - 0,30	1 - 0,07	1 - 0,08	n/a
reason suspect	n/a	n/a	n/a	n/a	n/a
reason suspect	n/a	n/a	n/a	n/a	2 - 0,22

Figure 248: Co-occurrence Table displaying c-coefficients

The calculation of the c-coefficient is based on approaches borrowed from quantitative content analysis (see Garcia, 2006). Thus, interpreting such a coefficient is only meaningful with a sizable data set and not for an interview study with 10 respondents. Given the possibility to work with survey data to analyze open-ended questions, it however is a valuable addition to the other more qualitative oriented analysis tools that ATLAS.ti provides.

The c-coefficient should vary between 0: codes do not co-occur, and 1: these two codes co-occur wherever they are used. It is calculated as follows:

```
c := n12/(n1 + n2) - n12
```

n12 = co-occurrence frequency of two codes c1 and c2, whereby n1 and n2 are their occurrence frequency

What you may experience is the following:

- Out of range. The C-index exceeds the 0 - 1 range it is supposed to stay with.
- Colored circles. Cells can have additional visual cues, e. g., a red, yellow or orange circle.

OUT OF RANGE

The c-index (structurally resembling the Tanimoto and Jaquard Coefficient, which are similarity measures) assumes separate non-overlapping text entities. Only then can we expect a correct range of values.

However, ATLAS.ti's quotations may overlap to any degree. Overlaps would only then bear no problem if there wasn't any „coding redundancy" (the ones you can eliminate using the Coding Analyzer, see "Redundant Codings Analyzer" for further detail). Let's look at a few scenarios.

Case 1: Two differently coded quotations overlap, we assume no more quotations available. Let P1 be a textual document, q1 and q2 be quotations and a,b be codes. q1 is coded with a, q2 is coded with b.

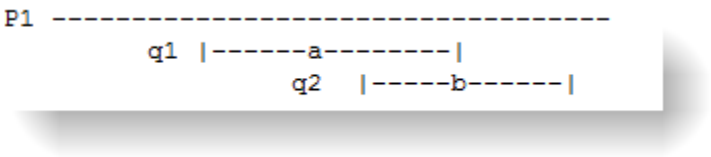


Figure 249: Out of range example 1

Using the formula: c := n_ab/(n_a + n_b) – n_ab, we get:

n_ab = 1 one co-occurrence of a and b
n_a = 1, n_b = 1 a and b each code exactly one quotation.
c = 1/(1 + 1) – 1 = 1

Such a scenario results in the maximum co-occurrence of 1 !

Case 2: q1 is coded with both codes a and b, the overlapping quotation q2 is coded with b.

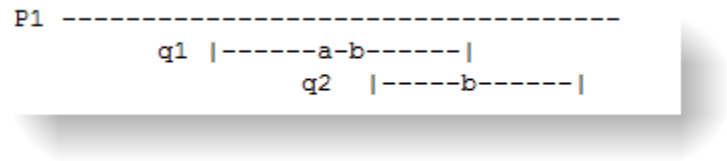


Figure 250: Out of range example 2

n_ab = 2. q1 alone counts for a co-occurrence event and the overlapping q1*q2 for another.

```
n_a = 1, n_b = 2
c = 2/(1 + 2) - 2 = 2!!
```

This results in a value of twice the allowed maximum. Thus, the C index is not appropriate to correctly represent co-occurrence in redundantly overlapping texts. If the c-coefficient exceeds 1, you need to do some cleaning up and eliminate the redundant codes. ATLAS.ti currently does not correct such redundancies automatically.

Correcting the redundant overlaps, could for example look like this:

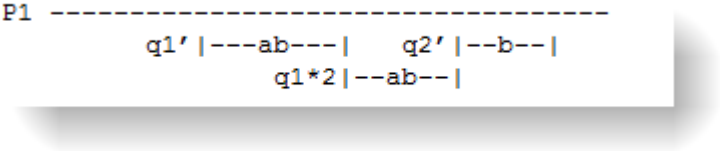


Figure 251: Out of range example 2 normalized

We get three quotations. q1' coded with a and b, q1*2 coded with a and b, q2' coded with b:

```
n_ab = 2, n_a = 2, n_b = 3
c = 2/(2 + 3) - 2 = 2/3 = 0.67
```

The result is within the allowed range and it correctly takes into account that of the three possible co-occurrence events only two apply.

To detect and correct redundant coding, select **Tools / Codings Analyzer**. See "Redundant Codings Analyzer."

COLOR INDICATORS

In order not to present a misleading image, all cells displaying an out-of-range number (> 1) are colored in yellow.

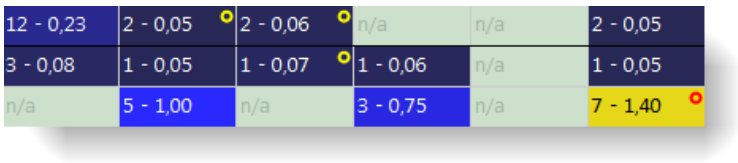


Figure 252: Examples of yellow and red circle markers

Circles with different colors are painted into a cell's upper right corner when certain conditions apply.

Red circle: When the c-index exceeds 1 (see "Out of range"). In addition to the red circle, the entire cell is highlighted in yellow.

Yellow circle: An inherent issue with the C-index and similar measures is that it is distorted by code frequencies that differ too much. In such cases the coefficient tends to be much smaller than the potential significance of the cooccurrence. For instance, if you had coded 100 quotations with code "depression" and 10 with "mother" and you had 5 co-occurrences:

```
n_dep = 100, n_mother = 10, n_dep-mother = 5
c = 5/(100 + 10) - 5 = 5/105 = 0.048
```

A c index of only 0.048 may slip your eye easily, although code "mother" appears in 50% of all its applications with code "depression". Looking from code "depression" only 5% cooccurr with code "mother".

If the ratio between the codes frequencies exceeds a certain threshold (currently 5 but will be user definable in the future) the yellow light goes on in the cell. So whenever a cell shows the yellow marker it should invite you to look into the co-occurrences of this cell despite a low c-index.

When the mouse hovers over a cell with a yellow mark, a pop-up displays the ratio of the two codes.

Orange Circle: The orange circle is simply a mixture of the red and yellow conditions.

Preference Settings

The preference settings allow you to set the column and row header width and to set the code colors as header background.

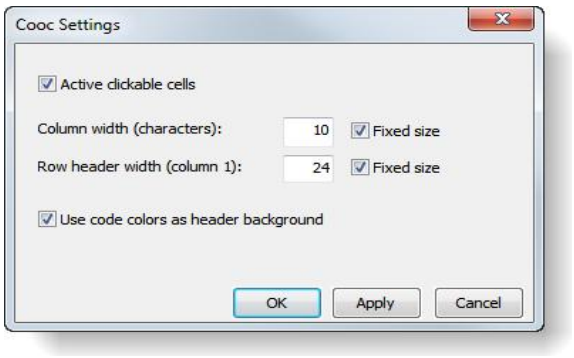


Figure 253: Code Cooccurence Table settings

The following table shows how you can alternate the look of the table by changing the settings:

	#fam: don't have children	#fam: have children
reasons for hc: altruism	1	8
reasons for hc: feel good about trade-of	n/a	12
reasons for hc: for oneself / self-centere	3	4
reasons for hc: personality	2	n/a
reasons for hc: richer life	n/a	6
reasons for hc: shaping a human life	n/a	5
reasons for hc: unconditional love	n/a	5
reasons for nhc: adoption	3	1
reasons for nhc: being there for others	4	n/a
reasons for nhc: don't feel the need	3	n/a
reasons for nhc: not worth the trade-off	3	1
reasons for nhc: personality	4	1
reasons for nhc: responsibility	n/a	1
reasons for nhc: self-centered	3	1
reasons for nhc: state of the world	4	n/a

Figure 254: Settings: No color for table cell; use code color as header background

An Example Query

Let's take a look at the code-code matrix using the Happiness sample project. A special code family as been prepared for this exercise that helps us to gain an overview of the responses regarding the question why or why not having children voiced by parents and non-parents. The family contains the two attribute codes (#fam: has children and #fam: no children) plus all sub codes of

the two categories "reasons for having children" and "reasons for not having children".

First, set a family as filter to reduce the list of codes to select from:

From the main menu select: **Codes / Filter / Families**: "for Quick Tour: Coocurrence Example". Or set this family as global filter in the side panel of the Code Manager (Ctrl+Shift+Click).

After setting a filter, all effected fields are shown in a pale yellow color.

Name
reasons for hc: feel good about trade-off {16-0}
reasons for hc: focusing illusion {7-0}~
reasons for hc: for oneself / self-centered {18-0}
reasons for hc: personality {2-0}~
reasons for hc: richer life {6-0}~
reasons for hc: shaping a human life {10-0}~
reasons for hc: unconditional love {10-0}~
reasons for nhc: adoption {4-0}~
reasons for nhc: being there for others {7-0}
reasons for nhc: don't feel the need {4-0}
reasons for nhc: not worth the trade-off {4-0}
reasons for nhc: personality {5-0}~
reasons for nhc: responsibility {3-0}~
reasons for nhc: self-centered {19-0}~

Figure 255: Setting a code family as filter

From the main menu select **Analysis / Code Cooccurrence Table.**

Next you need to select which codes should be displayed in the rows and which ones in the columns (see Figure 240):

Select the #fam: don't have children / have children and the blog entry codes as columns and all other codes as rows.

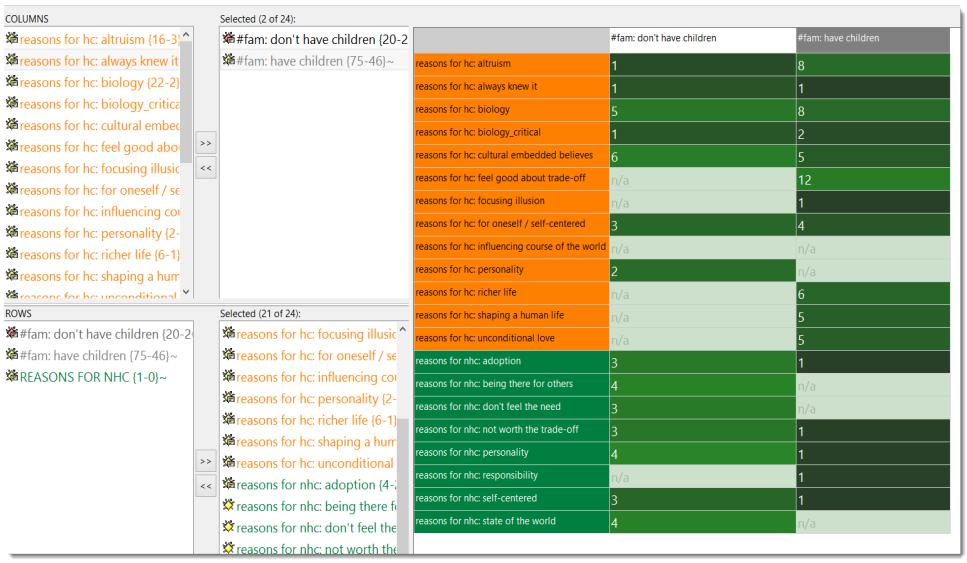

COLUMNS
Selected (2 of 24):
#fam: don't have children (20-2
#fam: have children (75-46)~
ROWS
Selected (21 of 24):
#fam: don't have children (20-2
#fam: have children (75-46)~
REASONS FOR NHC (1-0)~
#fam: don't have children
#fam: have children
reasons for hc: altruism 1 8
reasons for hc: always knew it 1 1
reasons for hc: biology 5 8
reasons for hc: biology_critical 1 2
reasons for hc: cultural embedded believes 6 5
reasons for hc: feel good about trade-off n/a 12
reasons for hc: focusing illusion n/a 1
reasons for hc: for oneself / self-centered 3 4
reasons for hc: influencing course of the world n/a n/a
reasons for hc: personality 2 n/a
reasons for hc: richer life n/a 6
reasons for hc: shaping a human life n/a 5
reasons for hc: unconditional love n/a 5
reasons for nhc: adoption 3 1
reasons for nhc: being there for others 4 n/a
reasons for nhc: don't feel the need 3 n/a
reasons for nhc: not worth the trade-off 3 1
reasons for nhc: personality 4 1
reasons for nhc: responsibility n/a 1
reasons for nhc: self-centered 3 1
reasons for nhc: state of the world 4 n/a

Figure 256: Results of the example code cooccurence query

The results of this analysis have been visualized in the two network view "Reasons for having children" and "Reasons for not having children". See "Network Views" for further detail.

Application

The two Co-occurrence Tools are very useful for many kinds of analysis. But not all options make sense for all type of data. If you have a smaller data set like a typical interview study with 10 to 20 respondents, then taking a look at the frequency count for exploratory purposes is likely to provide some new ideas and you may gain new insights. The c-coefficient is useful when working with larger amounts of cases and structured data like open-ended questions from surveys. If you use the c-index, pay attention to the additional colored hints. As your data base is qualitative, the c-coefficient is not the same as for instance a Pearson correlation coefficient and therefore also no p-values are provided.

In any case, co-occurrence measures need to be clearly understood, not only for the mechanical but also for semantic issues involved in their meaningful interpretation (e. g., mixed application of codes with different level like broader and sub terms). Furthermore, you need to be aware of the artifacts enforced by a table approach like being reduced to a pairwise comparison. Higher order co-occurrences which would take more than two codes into account need more elaborate methods.

References: Garcia (2004) http://www.miislita.com/semantics/c-index-1.html

Codes-Primary Documents Cross-Tabulation

Even though a bit hidden, a further analysis tool with an emphasis on quantitative output is the **Codes-Primary-Documents-Table.** You find this option under the **Analysis** menu and under **Codes / Output.**

The table is available as internal report within ATLAS.ti in text format, or can be exported to Excel. The internal report displays all PDs as columns and the codes as rows.

The table contains either a frequency count for each code or code family per document or document family, or a word count of the coded segments per code and primary document.

A useful application is a comparison across different groups of documents for a particular category of codes. Thus, you are likely to create such a table if you have a certain research question in your mind. This will guide you to create the code and PD families you need to construct your query.

Example Query

Based on the Happiness Stage II project that can be accessed via the Help / Quick Tour menu, we can compare statements that express either a positive or negative effect of parenting across different groups. For this purpose two code families grouping all codes about positive and negative parenting effects have been created.

To open the tool, select **Analysis / Codes-Primary Documents Table** from the main menu.

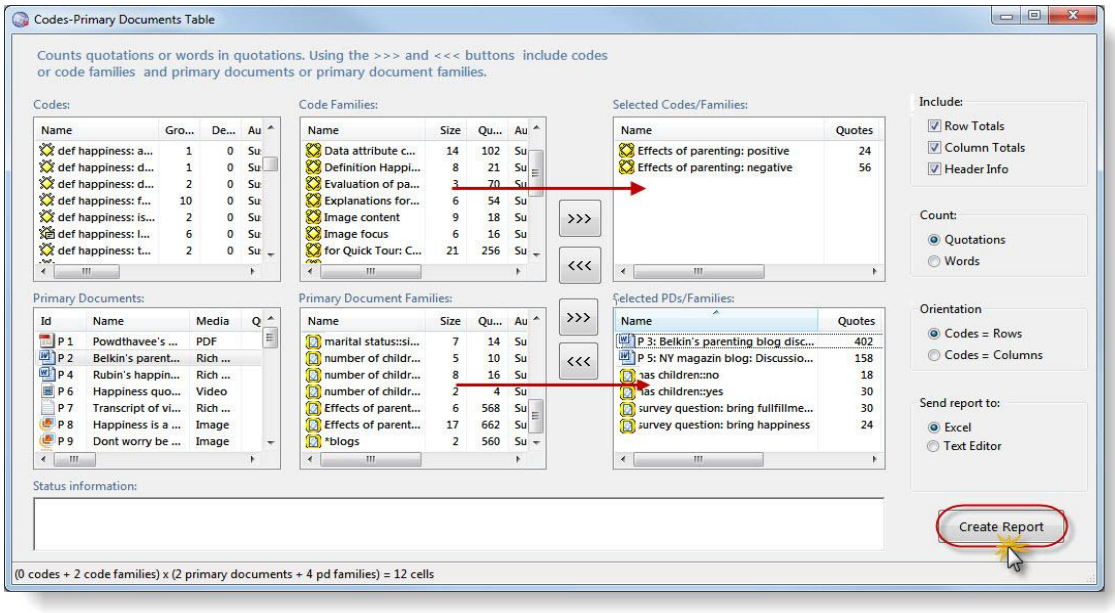


Figure 257: Setting options for the Codes-Primary-Documents-Table

Select these two code families "Effects of parenting: positive" and "Effects of parenting: negative" from the list. Either double-click on the items to move them into the selection list, or click on the button with the arrows pointing to the right.

Select the following documents and document families and move them into the selection list:

- P3: Belkin's parenting blog discussion
- P5, the New York magazin blog discussion
- survey respondents with children
- survey respondents without children
- survey respondents that answered the question about happiness with either: "children bring happiness" or "children bring fulfillment"

On the right hand side of the window, set the options as shown in Figure 257. Count: Quotation / Orientation: Codes – Rows / Send report to: Excel.

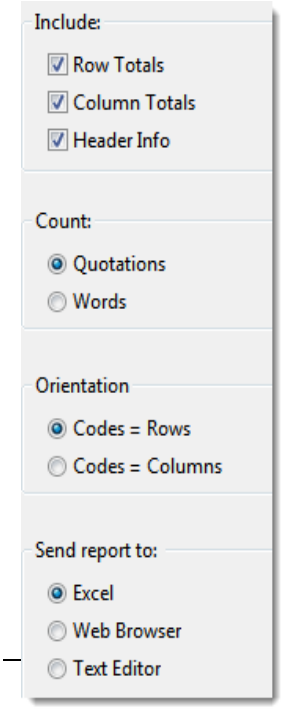
Click on the button **Create Report**.

Before the table opens in Excel, you will be asked to convert the exported results. Confirm the message.

Across all groups, we find more negative than positive statements.

	P 3: Belkin's parenting blog discussion	P 5: NY magazin blog discussion	has children no	has children yes	survey question: bring fullfillment & purpose	survey question: bring happiness	TOTALS:
Effects of parenting: negative	23	13	4	8	9	5	62
Effects of parenting: positive	16	4	2	2	3	1	28
TOTALS:	39	17	6	10	12	6	90

Figure 258: Formatted Excel output of a codes-primary-documents-table



Output Options

You can set the following output options:

To include the calculation of the row and column totals.

To include header information that provides information when the table was created, by whom (currently logged in user), and which items where selected.

The table cells can either show the quotation count or word count per code or code family.

You can decide whether the codes should appear in the rows or in the columns of the table.

The report can be displayed in a simple text editor or in Excel. The text editor is only suitable for small tables. The Web Browser option is not yet available in Version 7.0.

Calculating Inter-Coder Reliability Using CAT

Some programs offer rudimentary forms of inter-coder reliability calculation as an internal tool, but we have found CAT, a free external tool, to be an excellent addition to ATLAS.ti. Being that it is free, very easy to use, closely integrated with the ATLAS.ti data format and sports powerful functionality, we rely on it as a useful add-on rather than reinvent the wheel.

The **Coding Analysis Toolkit** is a web based add-on tool to ATLAS.ti that allows you to calculate inter-coder reliability for ATLAS.ti coded data.

You can access the tool via the following web site: http://cat.ucsur.pitt.edu/. To use the tool, you need to register and create a user account. Privacy issues are explained on the website. If you don't want to use CAT via their official website, you can host your own version of CAT from the project source code.

CAT offers the following analysis options to compare the coding of two coders:

Figure 259: CAT: Analysis options

The standard comparison allows you to either calculate a Kappa value or Krippendorff's alpha. The Code-by-Code comparison shows you the data content and thus offers a qualitative means of comparing coded data by coders. The third options allows a comparison based on families.

Standard Comparison

Once the data is uploaded the tool for the standard comparison looks as follows:

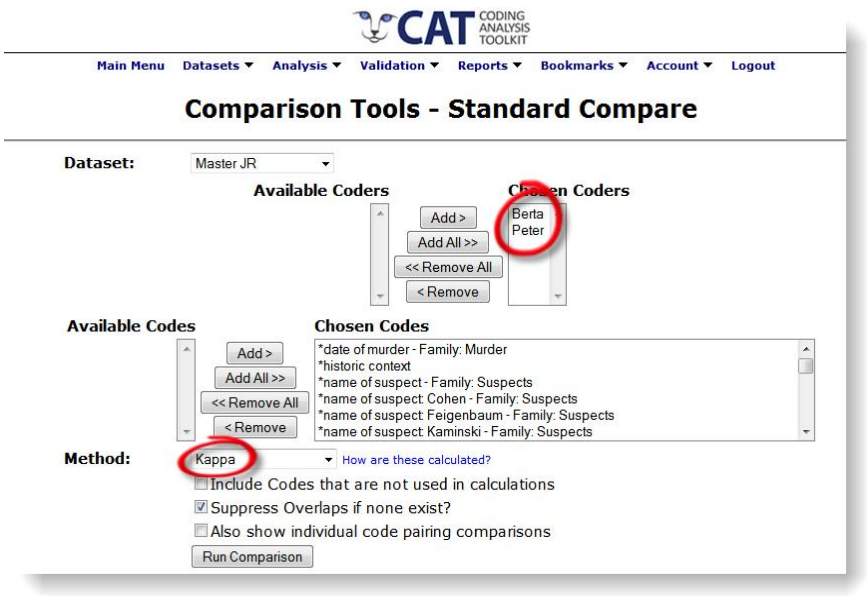


Figure 260: CAT comparison tool for calculating inter-coder reliability

Below you see an excerpt of a comparison results. The results show a perfect match as two identical HUs only differing by author were merged.

Comparison of All Coders

Code	Berta	Peter	Exact Match	Overlap	Kappa	Kappa (inc. Overlap)
*date of murder - Family: Murder	13	13	13	0	1.00	1.00
*historic context	4	4	4	0	1.00	1.00
*name of suspect - Family: Suspects	28	28	28	0	1.00	1.00
*name of suspect: Cohen - Family: Suspects	6	6	6	6	1.00	4.00
*name of suspect: Feigenbaum - Family: Suspects	1	1	1	0	1.00	1.00
*name of suspect: Kaminski - Family: Suspects	3	3	3	3	1.00	3.00
*name of suspect: Kelly - Family: Suspects	1	1	1	0	1.00	1.00
*name of suspect: Kosmiski - Family: Suspects	8	8	8	15	1.00	10.38
*name of victim - Families (2): Victim: Who?, Victims	14	14	14	1	1.00	1.07
INVESTIGATION - Family: Investigation	4	4	4	0	1.00	1.00

Figure 261: Result of an inter-coder comparison

Validation

In a less than perfect world, the coders will probably not agree one hundred percent. Therefore CAT offers a validation function where the coders involved can look at each coded segments, or only at those segments where the agreement was unsatisfactory. This way, coders can discuss the results and come to a better common understanding of what a a particular code means and how it should be applied.

« Previous
Next »
[+] Change Code Filter
Code(s): investigation_doubts - Family: Investigation
Initially it was considered a hoax, but when Eddowes was found three days after the letter's postmark with one ear partially cut off, the letter's promise to "clip the ladys (sic) ears off" gained attention.
(1) Valid
(3) Not Valid
856 annotations left to validate for this dataset.
Coders have marked this as:
Berta: investigation_doubts - Family: Investigation, role of the media_aiding investigation - Family: Role of the media
Peter: investigation_doubts - Family: Investigation, role of the media_aiding investigation - Family: Role of the media
Filename: 1_Jack the Ripper_Letters.rtf
Paragraph: 16:16

Figure 262: Validation process: Checking for differences

Further Resources

You find detailed tutorials on the CAT website:

- Quick start guide: http://cat.ucsur.pitt.edu/CAT_quickstart_final.pdf
- Instructions for preparing ATLAS.ti data for upload: http://cat.ucsur.pitt.edu/uploadInstructions.aspx
- Video tutorial for preparing ATLAS.ti for upload: http://www.screencast.com/users/stustu12/folders/Default/media/ffea5d54-2487-4535-9f79-71421910ec14

Network Views

The word "network" is an ubiquitous and powerful metaphor found in many different fields of research and application. Flow charts in project planning, text graphs in hypertext systems, cognitive models of memory and knowledge representation (semantic networks) are all networks that serve to represent complex information by intuitively accessible graphic means. One of the most attractive properties of graphs is their intuitive graphical presentation, mostly in form of two-dimensional layouts of labeled *nodes* and *links*.

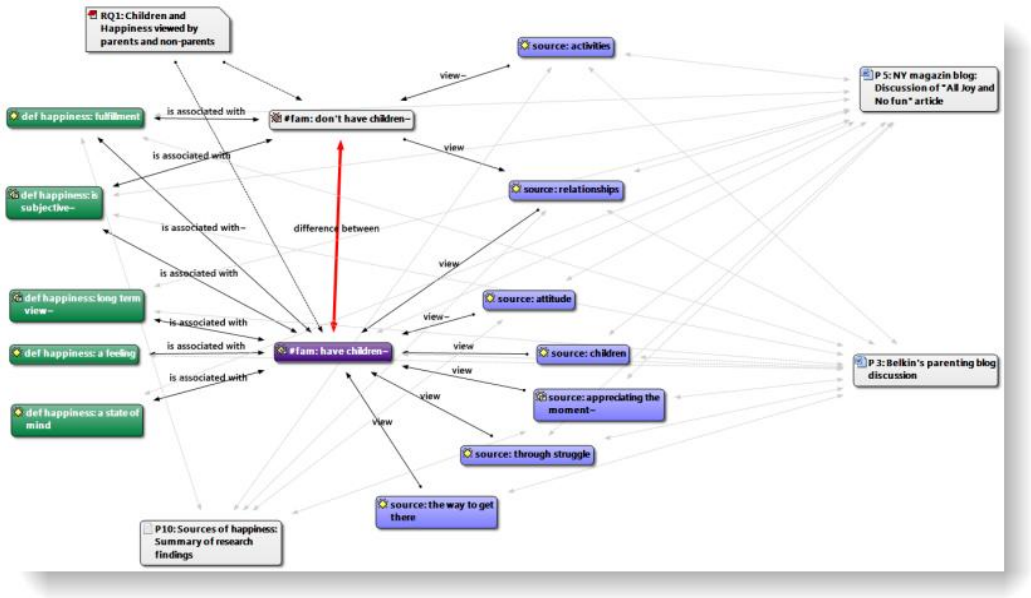


Figure 263: Example of an ATLAS.ti network view

In contrast with linear, sequential representations (e. g., text), presentations of knowledge in networks resemble more closely the way human memory and thought is structured. Cognitive "load" in handling complex relationships is reduced with the aid of spatial representation techniques. ATLAS.ti uses networks to help represent and explore conceptual structures. Networks add a heuristic "right brain" approach to qualitative analysis.

Networks are more than just graphics!

Along with using networks for "mind mapping" and the visual design of theoretical models, you can exploit the structural properties of code-networks to enhance the retrieval of quotations. Using networks for retrieval purposes is a well known technique in information retrieval. In that domain, a structured sets of keywords is usually referred to as a thesaurus. This usage of networks for semantic retrieval will be described at "Semantic Operators" in more detail.

Nodes And Links

The term "network" is formally defined within graph theory, a branch of discrete mathematics. A network is defined as a set of nodes (or "vertices") and links. A node in a network may be linked to an arbitrary number of other nodes.

The number of links for any one node is called its degree; e. g., a node with a degree of zero is not linked at all. Another simple formal property of a network is its order: the number of its nodes. You may make practical use of the degree of nodes by using it as a sorting criterion in the codes list window. The column 'Density' in the Code Manager represents the degree of a code.

Directed And Non-Directed Links

Links are usually drawn as lines between the connected nodes in graphical presentations of networks. Furthermore, a link between two nodes may be directed or not. A directed connection is drawn with an arrow. With directed links, source and target nodes must be distinguished. The *source node* is where the link starts and the *target node* is where it ends: the destination to which the arrow points. The terms c*onnection* and *link* are synonymous.

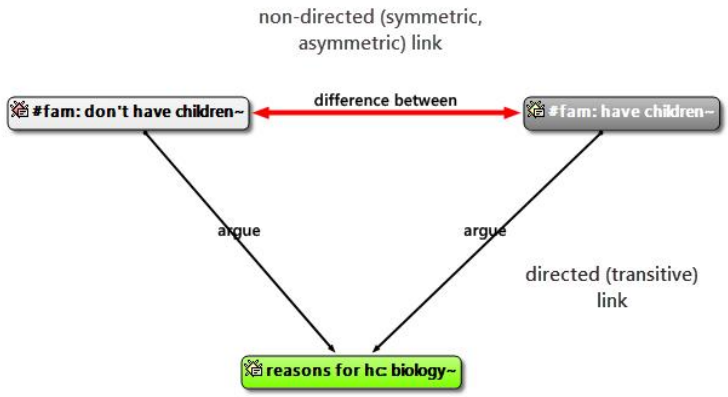


Figure 264: Examples of directed and non-directed links

Links are created either implicitly (e. g., when coding a quotation, the quotation is "linked" to a code), or explicitly by the user. The latter option is described in detail in this chapter.

Strictly speaking, code-quotation associations ("codings") also form a network:

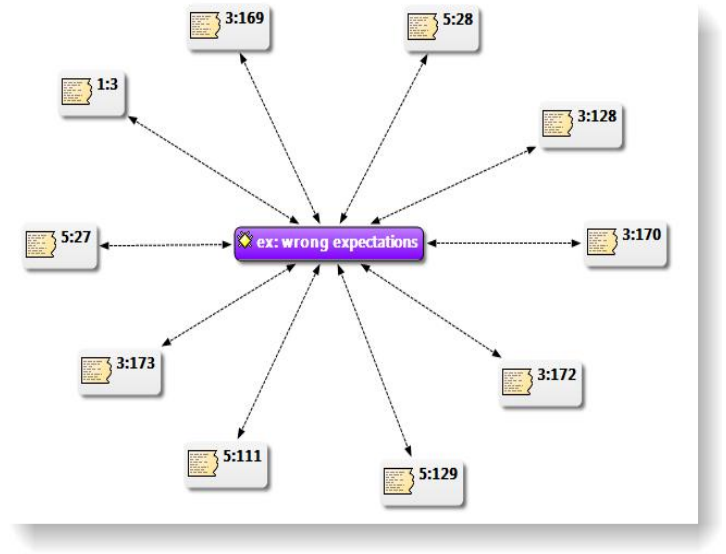


Figure 265: Code-quotations links

But you cannot name these links, the code is simply associated with a quotation through the act of coding. In a network view you can visualize these links. In ATLAS.ti all unnamed links are referred to as weak links, all named links are referred to as strong links.

Strong And Weak Links

Strong links – or "first class" links – are links based on relations. Strong links are entities by themselves, with names, authors, comments, and other properties. A strong link is only a link between a code and another code or a quote and another quote.

Weak links are links that do not have individual properties, e. g., the links between quotations and codes, between codes and memos, between a family and its members.

Network Vs. Network View

The difference between a 'Network' and a 'Network View' is an important distinction that is necessary to understand the way networks are handled within ATLAS.ti.

An ATLAS.ti network is the set of *all* objects and their links inside the Hermeneutic Unit (HU). It exists independently of any display-oriented characteristics (layout, color, line width, etc.). It is the *logical structure* of the HU's objects. It exists even before the first Network View is created.

Network View = logical structure + visual layout

A Network View is typically only a subset of this global structure of nodes and links combined with an individual layout of nodes. It is like viewing the same thing, i. e., the network, from different angles and with different pieces visible.

Node Types

The user can manipulate and display almost all objects within the HU as nodes in a network view: quotations, codes, code families, memos, memo families, other network views, primary documents (PDs), and PD families. The following discussion applies to all nodes regardless of their type.

See "Node Types" further details.

Relations

ATLAS.ti allows you to establish *named links* to more clearly express the nature of the relationships between concepts. With named links, you may express a sentence like "a broken leg causes pain" by two nodes (the source node "broken leg" and the target node "pain") connected with a named link ("causes" or "is-cause-of").

A default set of relations is provided. You may define your own.

The name of a link is displayed in the Network Editor as a label attached to the link midway between the two connected nodes. Six pre-set relations - or link types - are available in ATLAS.ti. These standard relations can be substituted,

modified, or supplemented by user-defined relations. The default relations are listed in the table below. C1 and C2 are source and target nodes, respectively.

Relation	Label 1	Label 2	Width	Color	Formal Attribute	Layout Direction
C1 is-associated-with C2	==	R	1	Black	Symmetric	→
C1 is-part-of C2	[]	G	1	Black	Transitive	↑
C1 is-cause-of C2	=>	N	1	Black	Transitive	↑
C1 contradicts C2	<>	A	1	Black	Symmetric	→
C1 is-a C2	Isa	0	2	Black	Transitive	↑
C1 noname C2			1	Black	Symmetric	→
C1 is-property-of C2	*}	P	1	Black	Asymmetric	↑

Some of these characteristics directly affect the display of links, while others affect processing (e. g., search routines, automatic layout). A link between concepts is displayed in a Network Editor by a line with the relation's label. You can choose from three different labels (label 1, label 2 and the name used for the menu when selecting a relation).

The "formal attribute" affects both the display and processing capabilities of a relation. For example: All asymmetric relations are symbolized in the Network Editor with an arrow pointing toward the target code. Symmetric relations are displayed with an arrow at both ends.

A typical transitive relation is the is-cause-of relation: if C1 is-cause-of C2 and C2 is-cause-of C3, it follows that C1 is-cause-of C3. Transitive relations also enable the "semantic retrieval" (see "Semantic Operators") .

The following properties are user-definable: the two labels and the menu text, which can be used as alternative display options, the width and color of the line linking two nodes, whether a link is directed or non-directed, and the preferred layout direction. The preferred layout direction affects the layout of a network when ATLAS.ti automatically arranges the nodes. See "Layout Procedures."

Link Vs. Relation

Relations are like "styles" in a word processor. Changing the style will change all occurrences of its usage, in this case: the links

It is important to understand the difference between a relation (or a link type) and the link itself: There is only one "is part of" relation, but potentially many links *using* it. In the Network View below, the relation "consequence" is used only once, while the relation "strategy" is used four times.

Another way to think of links and relations is to view links as *instances* of relations. Links are well informed about the characteristics of relations, which define their styles. If a characteristic of a relation is changed (e. g., line width, color, symbol), these changes are propagated to all links using it.

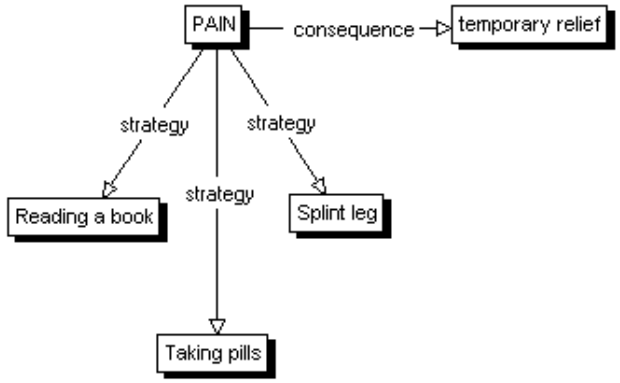


Figure 266: Four links using two relations, "strategy" and "consequence"

The Role Of Relations

It is useful to understand the role that relations play in the construction of a theory. The concepts (codes) that are linked using relations represent aspects of the problem domain under investigation. On the other hand, the relations used to link these domain concepts are part of the methodology used to analyze the phenomena. As important epistemological tools they constitute the main questions that guide the development of a model or a theory.

Define your own "epistemological primitives."

The "Grounded Theory" method of Glaser & Strauss uses relations like "is-phenomenon, "is-context-of," "is-consequence-of," "is-condition-for," "is-strategy-for," etc., to relate concepts found during the data-oriented *open coding* phase.

In the analysis of argumentation structures, other relations are more suitable: e. g., "is evidence of," "is contradictory to," "warrants," etc. A medical expert attempting to capture diagnostic knowledge would use, e. g., "is-symptom-of," and "is medication for."

The Network Editor

The Network Editor lets you visually connect codes and other objects to create semantic networks or hypertext webs.

The Network Editor offers an intuitive and powerful method to create and manipulate network structures. It favors a direct manipulation technique: You can literally "grab" codes, quotations, memos, or other objects using your cursor and move them around the screen as well as draw and cut links between them.

The following describes various methods available for creating and editing Network Views.

Network View Characteristics

Network Views have certain important characteristics:

- Several different Network Views on the same network are possible.

- Network Views can be given names under which they are stored and accessed inside the HU.
- Network Views can be commented.
- Network Views are displayed and edited in the Network Editor.
- Network Views allow individual layout of the nodes.
- As a node, a single object can be a member of any number of Network Views, just like a code can be an element of more than one code family.
- An object, e. g., a specific code, can only appear once in any Network View.

Network Views allow for a flexible but logically consistent display of the network of objects, so there are a few constraints to keep in mind:

If code A is linked to code B using the relation "is associated with", then every Network View that contains code A and code B will necessarily include the relation"is associated with" between the two. Furthermore, as only one link can exist between any two nodes at any given time, no Network View will display any other relation between those two nodes.

If however, you want to link code A and B differently in a different network view, then you need to work with "dummy or modifier codes". These are empty codes, i. e. you have not used them for coding, but you need them to modify a relation.

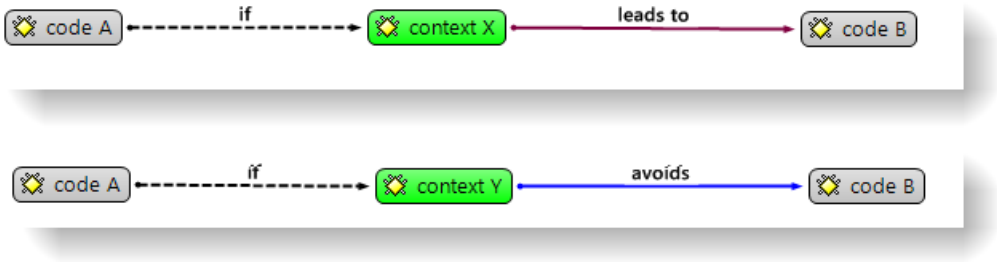


Figure 267: Using modifier codes for case-based network views

Node Types

The following object classes can be displayed and edited as nodes within the Network Editor. The display characteristics of the nodes can be altered in a variety of ways.

Codes As Nodes

Codes are probably the most prominent objects in ATLAS.ti networks. They provide the main ingredients for models and theories.

Memos As Nodes

Memos in networks are often an important supplement to code networks.

Several theoretical memos can be imported into a network to map out their relationship. The visual layout provides comfortable territory for moving from memo to memo to read and contemplate each individually and the relationship(s) between them.

When dragging a piece of text from a "drag-enabled" application (like MS Word™) into a Network Editor, the text becomes a memo with an automatically assigned title. The title can be renamed later.

Primary Documents As Nodes

PDs as nodes are useful sometimes, but in the presence of quotations may clutter the view by myriad links. However, PDs as nodes make a nice graphical content table for graphical primary documents. When selecting the option **Display/Full Image for PDs**, "thumbnail" images of the PDs are displayed. This option only affects graphical Pds.

Windows Explorer are used as standard icons for PD nodes (indicating the file of the document):

Figure 268: exampels of PD node icons

Quotations As Nodes

Quotations and codes have one thing in common that is not true for the other objects. They can link to each other (quotations to quotations and code to codes) with fully qualified "first class" links using relations.

The inclusion of quotations in a Network View supports the construction and inspection of hyperlink structures.

Figure 269: Display of quotations based on its media format

Textual quotations can be included in a Network View by simply dragging a piece of text from the PD.

Families As Nodes

Families are a useful device to group codes, memos, or PDs that belong to one concept. Instead of displaying all of the codes belonging to the concept, the Code Family may be displayed.

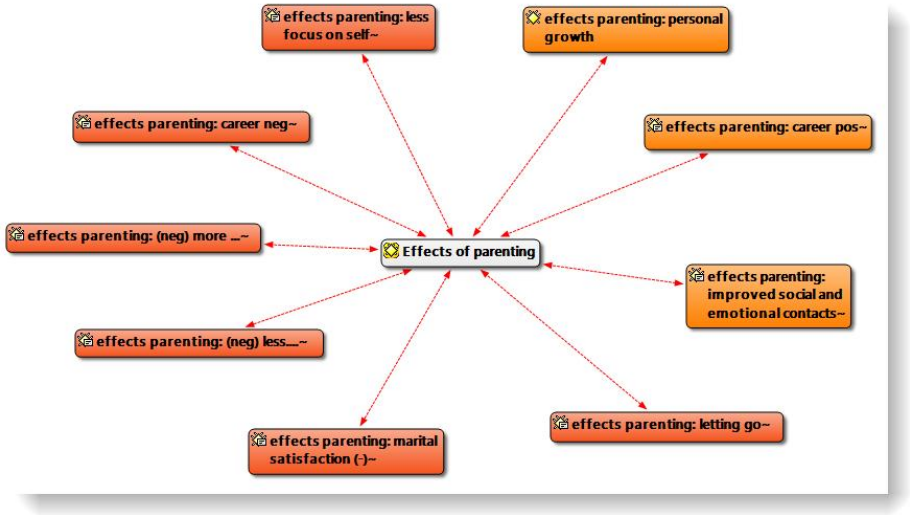

effects parenting: less focus on self~
effects parenting: personal growth
effects parenting: career neg~
effects parenting: career pos~
effects parenting: (neg) more ...~
Effects of parenting
effects parenting: improved social and emotional contacts~
effects parenting: (neg) less...~
effects parenting: letting go~
effects parenting: marital satisfaction (-)~

Figure 270: Families as nodes

The links between families and their members are depicted by a dotted red line.

Network Views As Nodes

The node icon and label for network views:

Figure 271: Network view as node

Network Views as nodes allow the inclusion of Network Views in other Network Views. The Network View's context menu offers the option to open the View in a separate Network Editor. This is also available via double-click with Ctrl pressed.

Basic Network View Procedures

Creating Network Views

Two methods for creating Network Views are available. The first one creates an empty Network View into which objects are imported in sequential steps. The other method creates a Network View from a selected object and its neighbors.

TO CREATE A NEW NETWORK VIEW

- Select **Networks / New Network View** from the HU editor's main menu or from the drop down list offered by the Network button in the main toolbar.
- Enter a name for the new Network View. A Network Editor opens.
- Import nodes with any of the methods described in the section " Nodes" below.

TO OPEN A NETWORK VIEW ON AN OBJECT

A Network View for an object is created with a selected object and its neighbors. Proceed as follows:

- Open an Object Manager (e. g., the Code Manager), or the HU Explorer, or righ click on an object in the margin area.
- Select one or more objects with a left mouse click.

- In Object Managers, you can click the network button. For an object selected in the HU Explorer, select **Open Network View** from the context menu
- A Network Editor opens with the selected object and its neighbors.

If multiple objects are selected, their neighbors are not automatically included in the network view. You can import their neighbors in a subsequent step.

The nodes are initially placed using the semantic layout procedure, but can be rearranged manually.

More nodes can be added to this Network View using different techniques (see " Nodes" for details).

Each time a network is opened on a selected object, a new Network View is created. There is no need to save it, as you can easily display it at any time following the steps above. If you rearrange the nodes and want to preserve the new layout, or if you add or remove nodes, then you need to save it explicitly (**Network / Save As**). Saved Network Views can be selected from the pick list or the Network View Manager.

Adding Nodes To A Network View

There are several options available for including objects in a Network View.

VIA DRAG & DROP

From Object Managers, the HU Explorer or the margin area: You can add nodes by dragging objects from Object Managers, the Network View Manager, the Family Manager, the margin, or the HU Explorer into the Network Editor. Drag & drop gives you better control of the initial position of the imported nodes.

- Open the Network View to which you want new objects imported.
- Open the manager(s) for objects (code list, memo list, etc.) that you want to import into a Network View.
- Select the node(s) you want to import into the Network View.
- Drag the selected objects into the Network Editor.

Drag selections of a primary text: This method creates nodes from textual quotations or new selections of text.

- Open the PD that contains the text that you want to import into a Network View.
- Make a selection within the PD or select an existing quotation.
- Drag the selected text into the Network Editor.
- Release the mouse button at the position you want the new node to be placed. If the selection was not already a quotation, a new quotation is created and the quotation node is displayed.

Text dragged from an editor or other applications becomes a memo. Text dragged from the PD pane becomes a quotation.

Drag text from other ATLAS.ti editors or other applications: This method allows you to drag text from drag & drop-compliant applications like an ATLAS.ti comment field or Word™ into a Network View Editor. Such text is converted into a new memo and displayed as a node.

- Open the application from which you want to drag selections of text into a Network View Editor.

- Mark the piece of text within the (other) application.
- Move the mouse pointer over the selected text. The pointer changes its appearance.
- Hold down the left mouse button and drag the selected text into the Network View Editor.
- Release the mouse button at the position you want the new node to be placed with its upper left corner. A new memo node is created and displayed.

VIA THE IMPORT NODES DIALOG

The Import Nodes window offers access to all available node types. The list pane offers a context menu to select or deselect all displayed objects.

- Choose **Nodes / Import Nodes** from the Network Editor's menu. A window opens, offering objects to be imported. Only objects that are not already members of the present view are listed.
- First, select the type of node you want listed in the list pane from the node-type drop-down list.

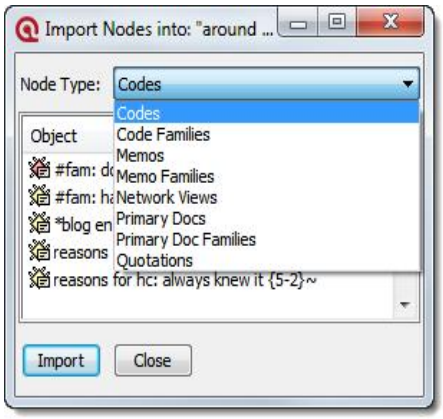


Figure 272: Import nodes window

- Select the objects to be imported into the Network View.
- Click Import.

The imported objects are placed along the upper left corner of the Network Editor. You can either distribute them manually by moving each node with the mouse, or you can place them automatically by (mis-)using the option **Layout / Semantic Layout.**

Selecting Nodes And Links

Selecting nodes is an important first step for all subsequent operations targeted at individual objects within a Network View. Such operations have their corresponding menu commands in the main menu of the Network Editor.

TO SELECT A SINGLE NODE

- Move the mouse pointer over the node and left click.
- All previously selected nodes are deselected.

TO SELECT MULTIPLE NODES - METHOD 1

- Hold down the CTRL key on your keyboard.
- Select a node as described above.
- Repeat steps 1 and 2 for every node to be selected.

TO SELECT MULTIPLE NODES - METHOD 2 ("MARQUEE SELECTION"):

This method is very efficient if the nodes to be selected fit into an imaginary rectangle.

- Move the mouse pointer above and left to one of the nodes to be selected.
- Hold down the left mouse button and drag the mouse pointer down and right to cover all nodes to be selected with the selection marquee.
- Release the mouse button.

Linking Nodes

The links between nodes in a network are real connections between the objects. Therefore, creating and removing links should not be regarded as solely "cosmetic" operations. Links make permanent changes to the HU.

There are several ways to link nodes:

LINKING VIA DRAG & DROP

- Select a node. A red dot appears on the top left corner of the node. Click on the red dot with with the left mouse button and drag the mouse pointer to the node that you want to link.

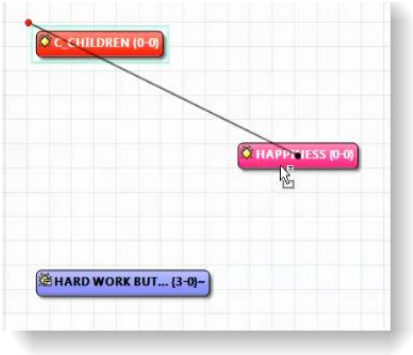


Figure 273: Linking nodes

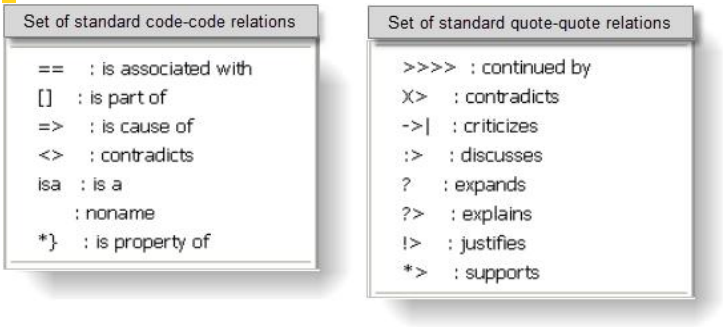


Figure 274: List of standard relations

Release the left mouse button on top of the node.

If you link codes to codes or quotations to quotations, a list of relation opens consisting of the default relations plus the relations of the currently open projects.

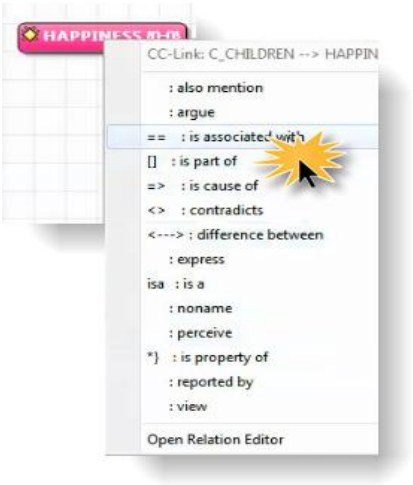


Figure 275: Selecting a relation to link two code nodes

Select one of these relations. Now the two nodes are linked.

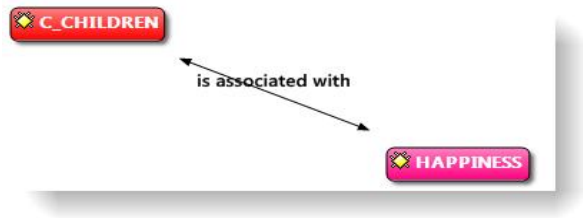


Figure 276: Two linked code nodes

The two nodes are now linked to each other. In case of a first-class link between two codes or between two quotations, the relation name is displayed either within the link line, above the line (rotated) or within a box.

To set the display options, select **Display / Link Display** from the Network Editor's menu.

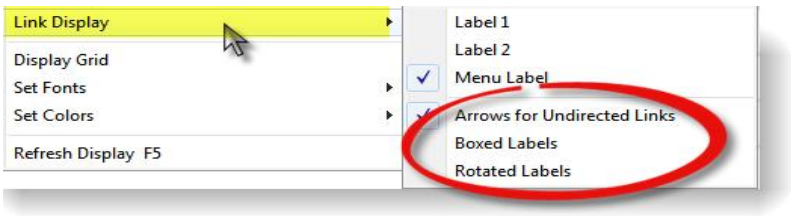


Figure 277: Link Display options

TO LINK TWO NODES USING THE TOOLBAR ICON

Select a node in a network view and click on the **Link** button in the toolbar (see left).

A black line appears. Move the end on top of another node and left click.

If you link two codes to each other or two quotations, then a list of relations pops up. Select one of the offered relations via a left click.

TO LINK TWO NODES USING MOUSE AND KEYBOARD

A quick way to link two nodes.

Place the mouse pointer over the source node.

Hold down the **Shift** key on your keyboard.

Hold down the left mouse button and drag the mouse pointer to the target node.

Release the left mouse button and the **Shift** key.

Select a relation (applies to code-code and quote-quote links only).

TO LINK MORE THAN TWO NODES

If more than one source node is to be linked with a target node, use the following method.

- Select the source nodes (see" To select multiple nodes - method 1 ").
- Choose **Links / Link Nodes** from the Network Editor's main menu, or click on the Link button in the toolbar.
- Move the mouse pointer with the black lines to the target node and click the left mouse button.
- In case of code-code and quotation-quotations links, you are prompted to select a common relation that applies to all links. You can modify the relations later, if needed.

TO LINK CODE NODES USING THE LIST METHOD

Besides using the Network Editor for creating links between codes, you can also use the "**Codes / Link Code to**" option available from the main menu or the code context menu.

- Select the target code (i.e., the general, broader concept) in the Code Manager.
- Select **Codes / Link Code to: / Codes** from the main menu.
- Select the source code(s) from the multiple-choice list.
- Select a relation that links the selected codes with the target code. If needed, the relation can be modified.

An immediate effect of linking can be noticed when the Code Manager is open: the 'density' counter for all linked codes is updated.

As a reminder, **Density** counts all direct links to other codes. For instance, if six source codes are linked to one target code, the target code is incremented by 6; each source code is incremented by one.

Using **Codes / Link Code to:** From the HU Editor's main menu, memos and quotations may also be linked to codes. Memos can also be linked to other memos, quotations, or codes via the menu option **Memo / Link Memo to.** However, no specific relation can be selected to link memos to other objects.

TO CREATE CODE-CODE AND QUOTATION-QUOTATION LINKS USING THE OBJECT MANAGER

Codes and quotations can also be linked in the Code / Quotation Manager via drag & drop.

- Identify the target item in the Object Manager's list pane.
- Select one or more source items in the Object Manager's list pane and drag them to the target item in the same pane.
- Select a relation from the list of relations.

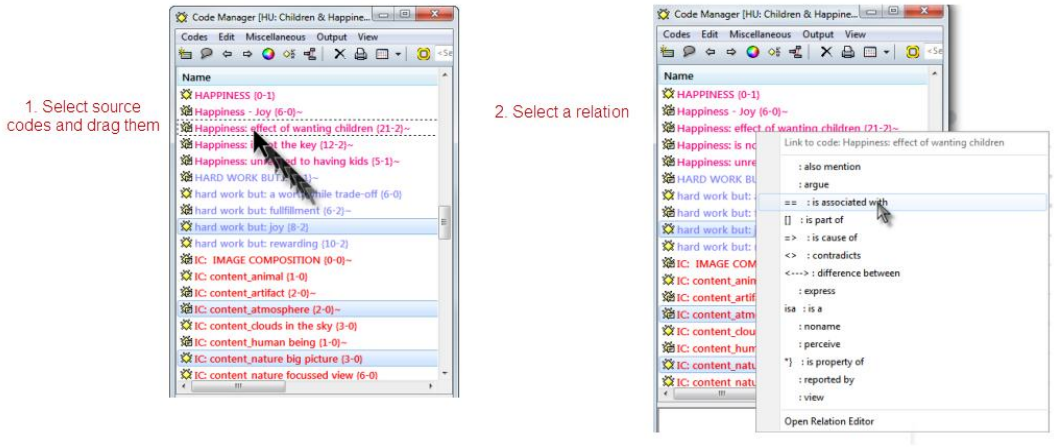


Figure 278: Creating a Code-Code link in the Code Manager

This option is only available for codes and quotations in the Code and Quotation Managers.

Selecting A Link

Only "first class" links can be selected. First class or "strong" links can only exist between quotations or between codes. Selecting links is similar to selecting nodes.

- Move the mouse pointer onto the label of the link to be selected.
- The mouse pointer changes its appearance.
- Click the left mouse button.
- The selected link label will be displayed inverted. All previously selected nodes/links are deselected.

Selecting links is a convenient way to cut or flip multiple links (see "Cutting Links").

Deselecting Nodes And Links

To deselect a selected node or link: Hold down the CTRL key on your keyboard. Click on a selected node or link.

To deselect all nodes and links: Move the mouse cursor over the Network Editor's background. Double-click the left mouse button.

Cutting Links

Several approaches to disconnecting previously linked nodes are available.

The first method works for all types of links and is useful when many nodes linked to one other node are to be disconnected:

- Select one or more nodes whose connections to another node are to be removed.
- Choose **Links / Cut Links** from the Network Editor's menu or click on the Cut Links button in the toolbar.
- Move the mouse pointer with the "rubber bands" to the target node.
- Click the left mouse button

Alternatively:

- Click on one or more link labels.
- Choose **Links / Cut Links** from the Network Editor's menu or click on the Cut Links button in the toolbar.

Or:

- Move the mouse pointer over a link label.
- Right click and choose **Cut Link** from the context menu.

The latter two methods work on "first class" links only: code-code or quote-quote ("hyper") links.

Modifying Links

The type of a link (e. g., its Relation) can be changed in the Network Editor.

- Right click on a link label and select **Change Relation** from the context menu.
- The relation menu pops up. Select a different relation.

A very efficient way to manipulate first class links is offered by the Link Managers (see "Link Management").

Selecting Neighbors

Neighbors are the nodes linked directly to a node. Using this procedure repeatedly selects a complete "connected graph", which is a partial Network View where every node has a path (either a direct link or via intermediate nodes) to each other node.

To select neighbor nodes:

- Select the initial nodes.
- Choose **Nodes / Select Neighbors** from the Network Editor's menu, or press **Ctrl-N** on the keyboard.

To mark a complete connected sub-network, repeat the previous step until all nodes within the partial Network View are highlighted.

Selecting Or Deselecting All Nodes

To select all nodes or deselect all selected nodes, select **Nodes / De-Select all nodes** from the Network Editor's main menu or press Ctrl-A on the keyboard.

INVERTING THE CURRENT SELECTION

To invert the current selection, press Ctrl-I or select **Nodes / Inverse Selection** from the Network Editor's main menu. This will select all unselected nodes and deselect all previously selected.

Moving Nodes

By moving nodes to different positions, you can modify an initial layout created by the automatic layout procedure.

For precision placement of nodes, use the node alignment options from the network editor's tool bar, or Select **Layout / Align**:

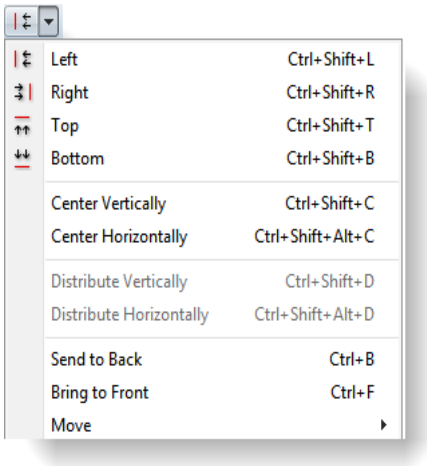


Figure 279: network view alignment tools

Do not forget to save the Network View (and the HU itself at the end of the session) if you want to make the new layout permanent.

TO MOVE A SINGLE NODE

Move the mouse pointer onto the node to be selected.

- Hold down the left mouse button.
- Drag the selected node to its new position.

TO MOVE MULTIPLE NODES

- Create a multiple selection of nodes as described above.
- Hold down the **Ctrl**-key and drag the selected nodes to their new position.

TO MOVE NODES WITH THE ARROW KEYS

- Select one or more nodes using the selection methods described at "Selecting Nodes and Links."
- Use the arrow keys in combination with the **Ctrl** key to move the node(s) 1 pixel at a time in all four directions.

Ctrl-Z - Undo node placements

To undo an erroneous placement, select **Nodes / Undo Positioning** or the key combination **Ctrl+Z**.

Removing And Deleting Nodes From Network Views

'Removing Nodes' will not delete the objects they represent! The option 'Delete Node,' however, does!!

Removing nodes from the view simply takes the nodes out of a Network View. The nodes remain in the HU. Removed nodes can be "re-imported" at any time using the node import functions described previously. However, deleting nodes results in the deletion of the objects they represent from the entire HU—erasing codes, quotations, etc.! Be cautious when deleting nodes!

TO REMOVE NODES FROM A NETWORK VIEW

- Select the nodes to be excluded from the view.
- From the Network Editor's main menu, choose **Nodes / Remove Nodes from View** or press Ctrl-Del on the keyboard. If you only want to exclude a single node, you may also choose this option from the node's context menu.

TO DELETE NODES FROM A NETWORK VIEW

- Select the nodes to be deleted permanently from your HU.
- From the Network Editor's main menu, choose **Nodes / Delete Node.**
- Confirm the deletion process as it is a critical action. Deleting a node from a network view means that you permanently delete this object from your HU! This can be useful, when you have been adding new objects to a network view for exploratory purposes. Use this option with care.

For this operation, no undo option is available. The only way to undo a false deletion is to close the HU without saving it and to open the most recent version or backup.

If you only want to exclude nodes from a Network View, do not select **Delete Node** from the node's context menu or **Delete Entities** from the main menu. Select the **Remove from View** option.

Node And Link Actions

Commands affecting selected codes or links are available via their respective context menus. In addition, as described below, type-specific procedures are activated when double-clicking a node.

ACTIONS VIA CONTEXT MENUS

All nodes and links have context menus.

Context menus can be activated on nodes and links. Dependent on the type of the node or link selected, these menus will offer specialized options from which to choose.

When the mouse pointer is over a node or a link, related information is

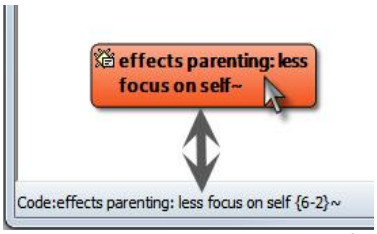


Figure 280: The status bar displays information about a node when moving with the mouse over it

displayed in the status window of the Network Editor.

To open a context menu, move the mouse-pointer onto a node or link and click the right mouse button.

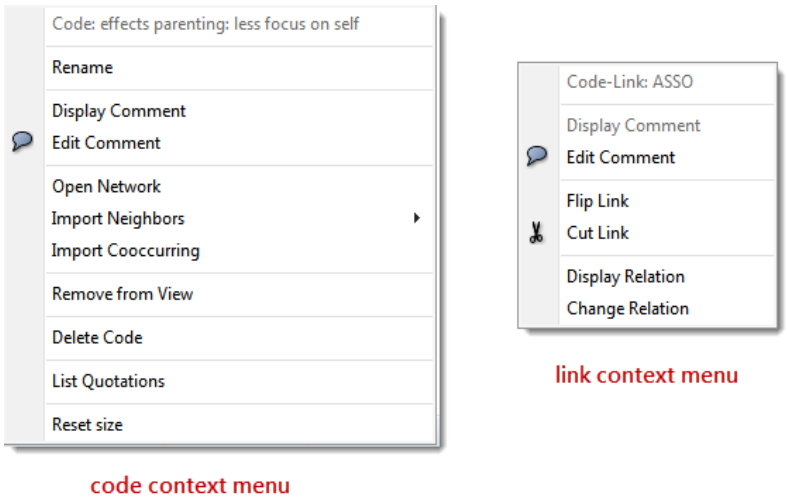


Figure 281: Context menus

TO EXECUTE NODE ACTIONS PER DOUBLE-CLICK

- Position the mouse pointer over a node.
- Double-click the left mouse button

The table below describes the specific actions launched for the different node types.

If a comment or a memo's text pops up, you can click inside the pop-up window to open a text editor.

Node Type	Double-Click Action
Codes	Displays the code comment (definition).
Memos	Displays the content of the memo.
Quotations	Displays the full text of the quotation.
Primary Documents	Displays the comment for the PD.
Families	Displays the description/comment for the family.
Network Views	Displays the description/comment for the Network View. Hold down the Ctrl key to open this Network View in another Network Editor

Saving A Network View

All links that you create are saved as soon as you save the HU file. You only need to save a network view, if you want to preserve the layout, i. e. the way you have arranged the nodes within the editor. If you do not save a particular view, you can always open up a network view on an object again and ATLAS.ti will arrange the objects according to the default or user-defined layout

directions. For first-class relations, the user can defined preferred layout directions (see the section on the "The Relation Editors."

To save a specific layout you have created, select the menu option **Network / Save As**.

Enter a name for the network view and click ok.

Accessing And Opening Existing Network Views

You can access saved network views via the network button that you find in the top left corner of the HU editor underneath the main menu, or via the Network View Manager, or via the navigation pane (see "Navigation Pane [11]").

VIA THE MAIN TOOL BAR

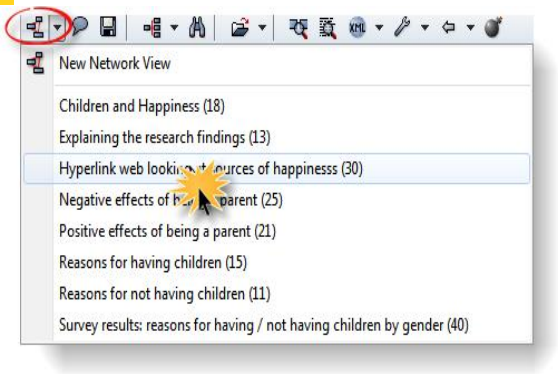

New Network View
Children and Happiness (18)
Explaining the research findings (13)
Hyperlink web lookin
ources of happinesss (30)
Negative effects of h
arent (25)
Positive effects of being a parent (21)
Reasons for having children (15)
Reasons for not having children (11)
Survey results: reasons for having / not having children by gender (40)

Figure 282: Opening an existing network view via the main tool bar

Click on the network button in the main tool bar:

Select a network and left-click to open it.

VIA THE NETWORK VIEW MANAGER

Select **Networks / Network View Manager.**

Similar to the primary document manager, the network view manage also offers a Tiles view with various preview sizes

Select VIEW / TILES and then VIEW / PREVIEW SIZE: JUMBO. Or try out other sizes.

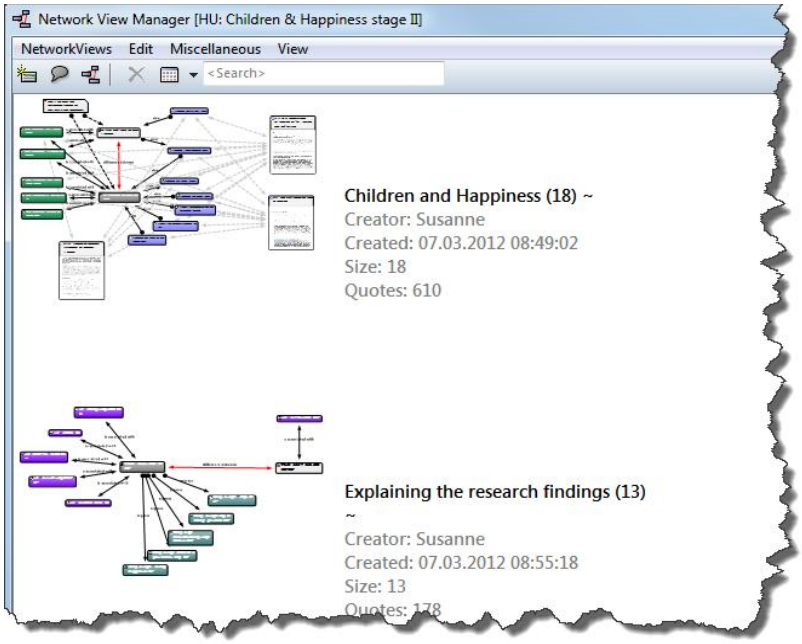


Figure 283: Preview images of network views in the Network View Manager

In the network view manager you can enter a comment for each network to describe it.

VIA THE NAVIGATION PANE

Open the navigation pane and select the network view tab:

Also here you have the option to display preview images:

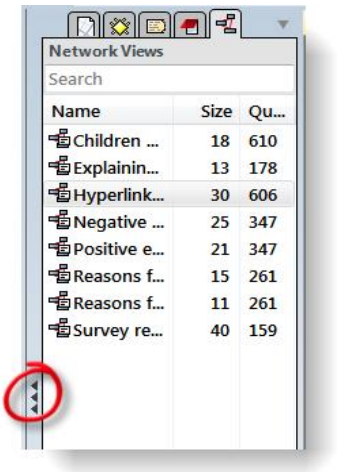


Figure 284: Accessing network views via the navigation pane

Right-click and select Show Preview:

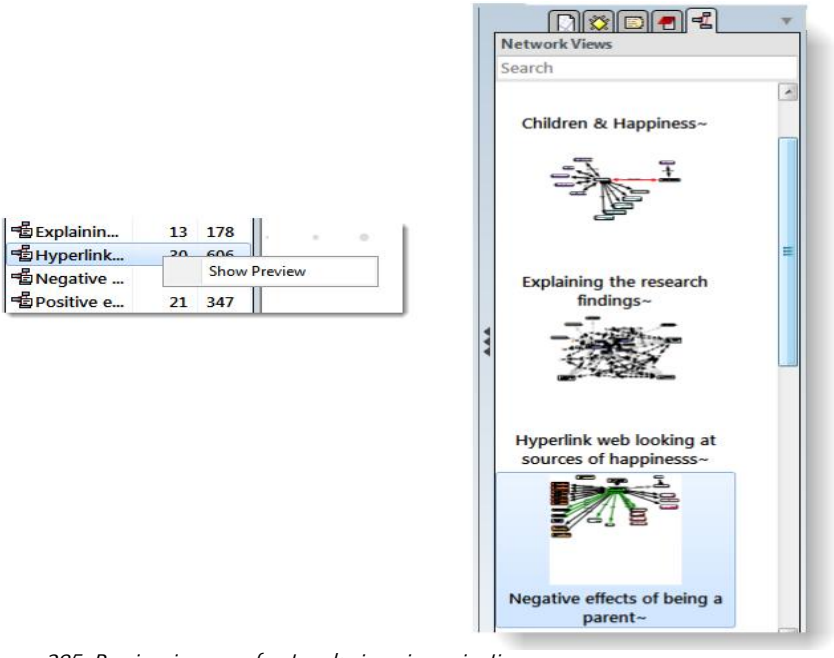


Figure 285: Preview images of network views in navigation pane

Analytic Functions

IMPORT NODE NEIGHBORS

Import neighbors can be undone. Shortcut: Ctrl-Shift-Z.

This method imports all direct neighbors of the selected nodes into the Network View. This option is also available from the node's context menu. Importing direct neighbors allows you to construct a *connected* Network View step-by-step. (In a connected graph, there is always a direct or indirect path between any two nodes.)

To import neighbors of selected nodes:

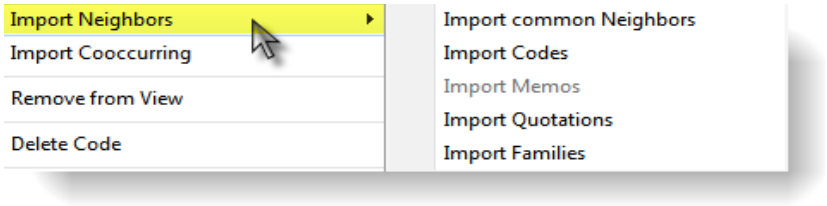


Figure 286: Import Neighbors sub menu

- Select the node(s) whose neighbors are to be included in the Network View.
- Right-click and select **Import Neighbors** from the context menu.

If you have mistakenly imported the wrong or too many node neighbors, select **Nodes /Undo Import Neighbors** from the menu, or press the key combination Ctrl-Shift-Z.

Import common Neighbors imports all directly linked objects. All other options let you specifically select which objects you want to import. Below the options for the various objects types are listed:

Quotations
- Import common Neighbors
- Import Codes
- Import Memos
- Import Hyperlinks

Documents / Codes / Memos
- Import common Neighbors
- Import Codes
- Import Memos
- Import Quotations
- Import Families

Families
- Import Neighbors (i.e. family members)

CREATING CASE-BASED NETWORK VIEWS

Importing a document's codes neighbors allows to create case-based network views. You can ask questions like: Which of the codes have been applied in which document (and where do they not occur). ATLAS.ti automatically draws light gray lines between codes and the primary documents.

The network view "Hyperlink web looking at sources of happiness" in the Happiness Stage II sample project provides an example.

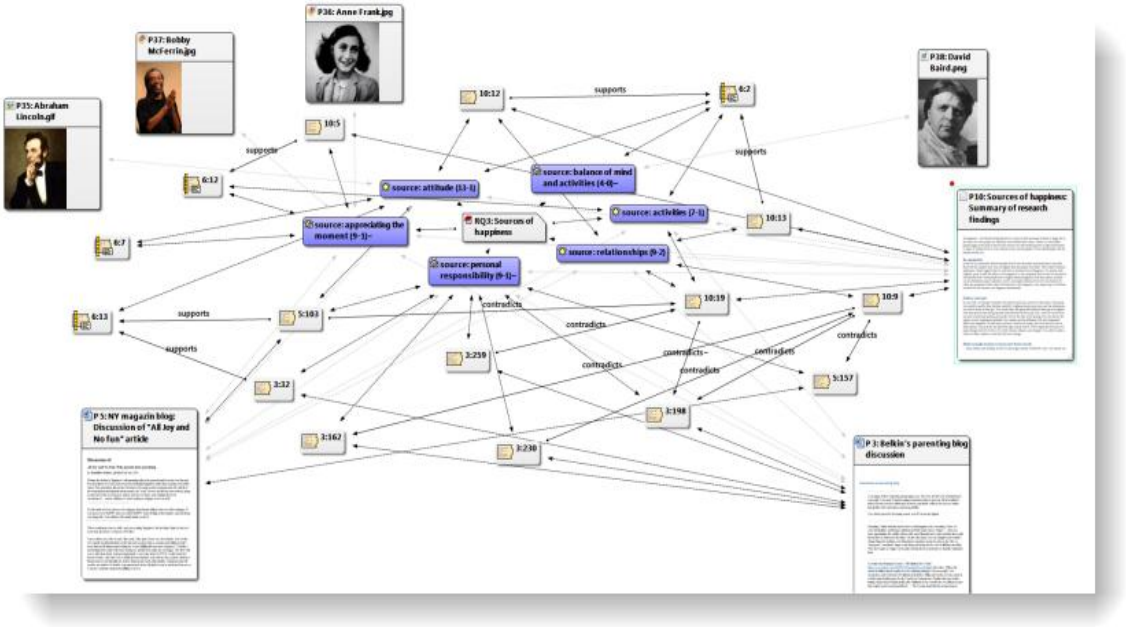


Figure 287: Example of a case-based network view

What can be seen is that statements that support the view that one is personally responsible for one's own happiness are mainly coming from the blogs (P3 and P5). They contradict the view that relationships might be a source of happiness as well, which however is supported by scientific evidence (P10).

Another example provided by the sample project is the network view "Survey results for having / not having children by gender".

IMPORT CO-OCCURRING CODES

For code nodes, there is a special import feature that exploits the spatial relations of different codings. A code co-occurs with another if it has been used to code quotations that are in close proximity: embedded, overlapping, or if two or more codes are applied to the same quotation.

The proximity of coding applied to a text can also be exploited via the Query Tool's "co-occurrence" proximity operator. However, while the Query Tool yields quotations for explicitly specified codes, the import function brings in only the codes.

To import co-occurring codes:

- Select one or more codes in the Network Editor.
- Choose **Nodes / Import Co-occurring Codes** from the Network Editor's menu.

Working With Filters In Network Views

In ATLAS.ti 7, filter settings do have an effect on network views. In previous versions if you used the import cooccuring code options, all cooccuring codes were imported. This resulted in pretty pictures but most often not in meaningful results. Being able to work with filters turns the network function into a powerful analytic tool.

Let's take a look at an example again based on the Happiness Stage II project:

To find out what people who have children and those who do not have children think about sources of happiness, do the following:

- Add the code "#fam: have children" to a new network view.
- Set the code family "Sources of happiness" as global filter (see "Setting a Global Filter").
- In the network view right-click on the inserted code and select the option **Import Coccouring.**

Now only the "Sources of happiness" codes are imported. The links that you see between the codes have previously been created manually.

Repeat the steps with the super code #fam: don't have children" and compare the outcome. To create the network view shown in Figure 289, two separate network views have been created at first. After the related codes were linked, all codes were added to one network view.

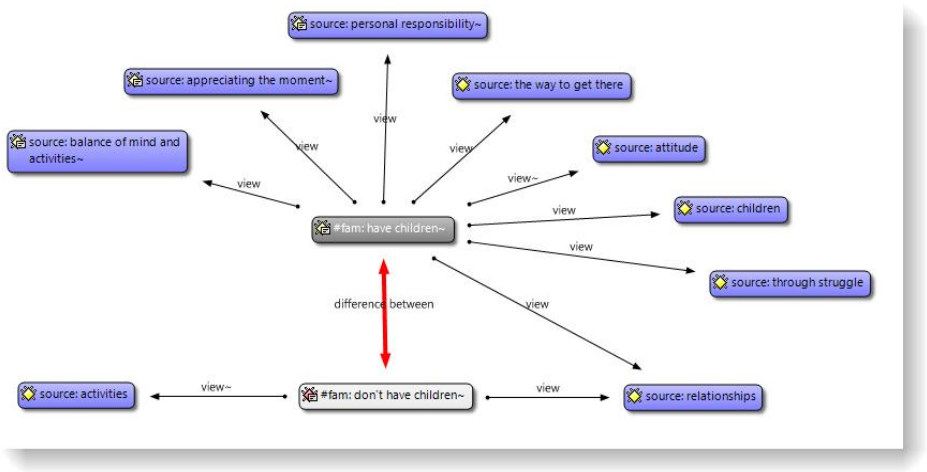


Figure 288: Differences between parents and non-parents with regard to their views on sources of happiness

Use Global Filters To Fade-Out Objects

If you set a global filter and click on the filter icon in the Network View editor, all objects that are not included in the filter are faded out. This is best demonstrated by way of example in the figures below:

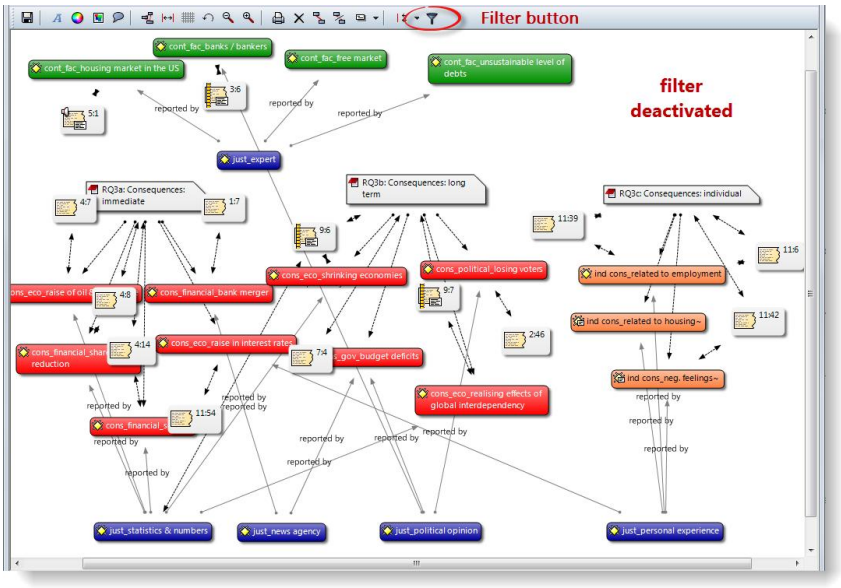


Figure 289: The full network view without active filter

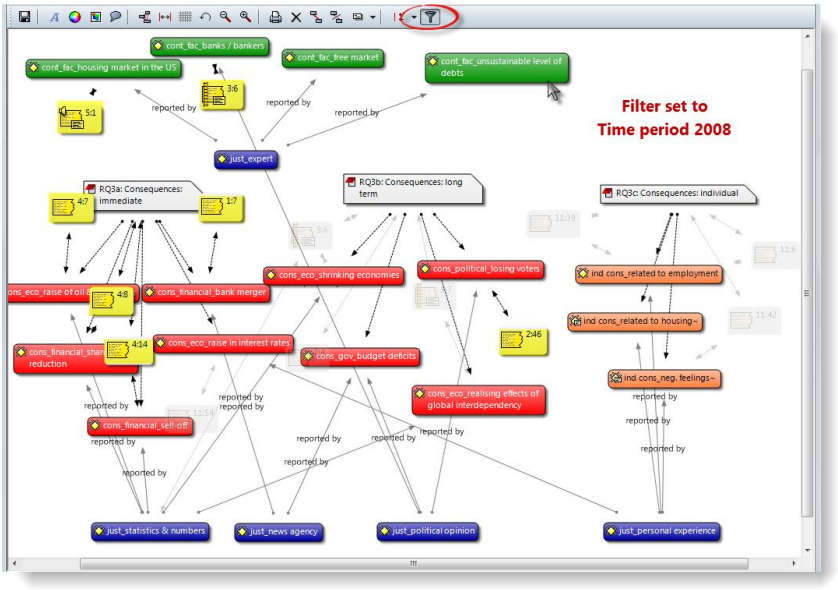


Figure 290: PD family filter is set: All quotations that are not from 2008 are faded out

In Figure 290 above the filter is set to the PD family "time period 2008" and thus only those quotations are shown that occur in primary documents from 2008. All other quotations are faded out.

In Figure 291 below, the reverse is true. You see all quotations from documents included in the PD family "time period 2009" and all other quotations are faded out.

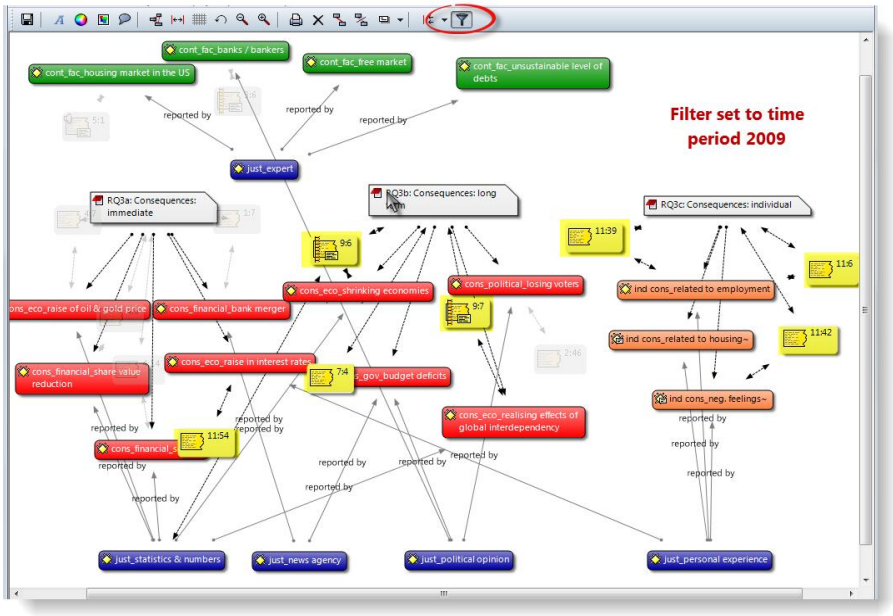


Figure 291: PD family filter is set: All quotations that are not from 2009 are faded out

If you set other filters, e.g. a code family, then all but the codes of that family are grayed out. This works for all filters in the same way.

Create Families From Network Views

You can create code, PD or memo families based on the nodes included in a network view.

- Select the nodes that you want to include in the family (see "Selecting Nodes and Links").
- From the network editor's menu, select the option **Specials / Generate Family** and then the respective object type (code, memo or PD family).
- Enter a name for the family and click OK.

Create Network Views From Code Families

It is also possible to create network views based on code families. A new code will be created from the code family name and all member codes will be linked via ISA relations.

- Open the Code Family Manager.
- Select a family and then the menu option **Families / Create Network**.
- A pop-up message informs you that a new code will be created and that all member codes will be linked via ISA relations. Confirm this message.
- Accept the default name for the new code or enter a new one and click Ok. The newly created network view opens.

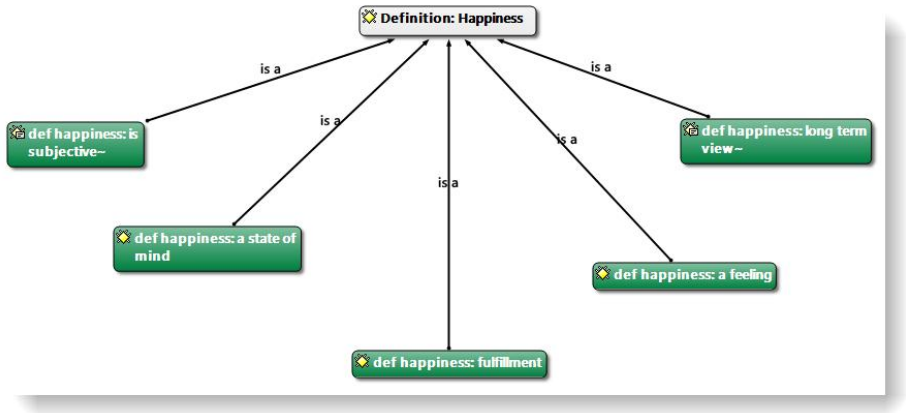


Figure 292: A network view created from a code family

Layout Procedures

Two methods are available for the automatic placement of nodes.

Semantic Layout

Shortcut: CTRL-L

Places the nodes within the window using the *semantic layout algorithm*. This algorithm tries to place the nodes into optimal positions using an invisible matrix of default positions. It tries to place the nodes with the highest connectivity into center positions.

By recursively applying the same method to the rest of the nodes using neighboring positions of the first node placed, the algorithm tries to avoid overlapping nodes and too many crossing links. However, calculating an optimal solution is not possible in a reasonable amount of time.

The user can exert some control on this algorithm via the preferred layout direction of the relations used for the links, e. g., links using the "is-a" relation go from bottom to top, if possible. You can change the layout direction manually using the Relation Editor (see "The Relation Editor"for details).

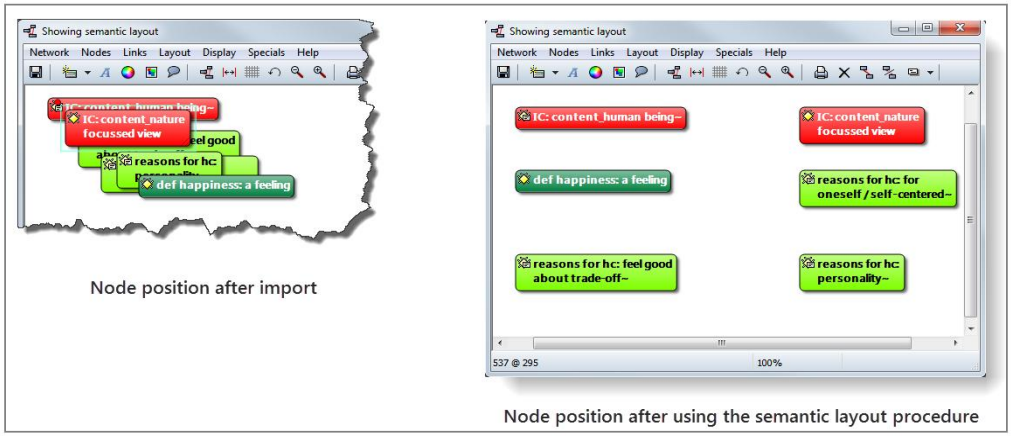

Showing semantic layout
Network Nodes Links Layout Display Specials Help
IC: content_nature focussed view
reasons for hc:
def happiness: a feeling
Node position after import
Showing semantic layout
Network Nodes Links Layout Display Specials Help
IC: content_human being~
IC: content_nature focussed view
def happiness: a feeling
reasons for hc: for oneself / self-centered~
reasons for hc: feel good about trade-off~
reasons for hc: personality~
537 @ 295
100%
Node position after using the semantic layout procedure

Figure 293: Before and after applying Semantic Layout to a Network View

The results of the automatic layout procedure are typically quite usable and provide at least a good starting point for subsequent manual refinement of nodes' placement. If you are not happy with the layout produced, you can revert to the previous placement by using **UNDO POSITIONING** (Ctrl-Z).

Topological Layout

Ctrl-Z - Undo node placements

This special layout procedure tries to create a linear list of nodes positioned from the upper left to the lower right. This sequence is the result of a **depth first traversal** of the graph. The algorithm tries to resolve as many constraints between any two nodes so that a node with the least dependencies is made the first node positioned in the upper left corner, and the node with the most dependencies on other nodes is positioned in the lower right corner of the Network Editor.

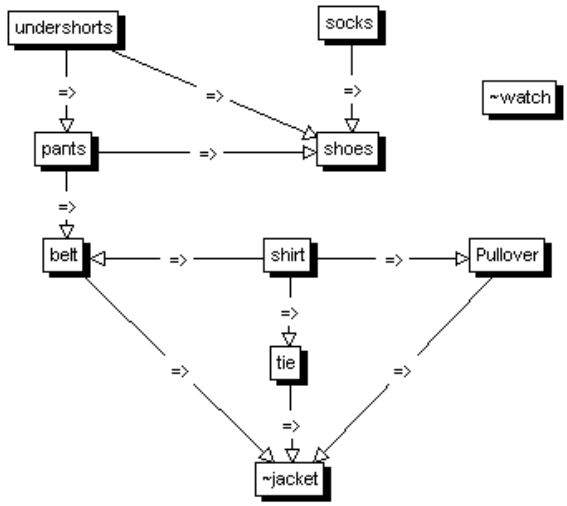


Figure 294: A set of activities with local constraints

In the example above, the dependencies between several activities necessary to get dressed are described by local constraints between the nodes. From these local constraints, a global solution is generated: One correct way to get dressed. The "is-cause-of " relation was used to describe constraints. The only condition a relation must meet is that it has the "transitive" attribute.

You can restrict the topological layout option to just *codes* by holding down the CTRL key when selecting the topological layout option; if you want to restrict it to quotations only, hold down the CTRL+SHIFT key.

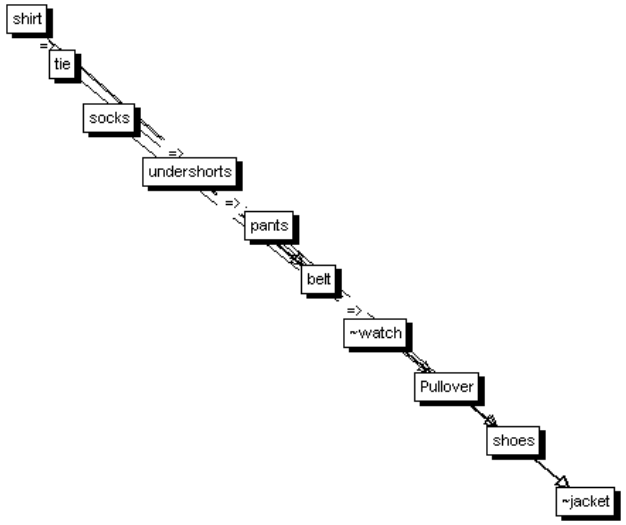


Figure 295: Topological sort always results in a linear, diagonal placement of the nodes

Such algorithms are typically in use in project management software. You can use a directed relation like "before" to represent time dependencies between

events ("socks before shoes," "shirt before tie," "marriage before divorce") and then compute a possible sequence of events.

Creating Output

Several output options are available for Network Views. The range is from printing the layout (via copying to the clipboard in a variety of formats both textual and graphical) and by saving a Network View to a file.

Printing Networks

Before printing a Network View the first time, you may prefer to set some general options (include title, print border, etc.) (**Specials / Preferences / Printing).**

You can either print the entirety or part of a Network View.

- Open the Network View and arrange all nodes to be printed.
- If you want to print a selection of nodes only, select these nodes (for multiple selection, hold down the Ctrl key).
- Choose **Network / Print Network View** from the Network Editor's menu.
- In the Printer dialog window that opens, check "Selection" to print selected nodes only.

If the size of the network view determined by the node layout exceeds a single page, depending on current printer settings, scaling or multi-page print will be offered as a choice.

- Make your choice and the network view will be printed.

Network Views For Other Applications

COPY TO CLIPBOARD

The menu option **Network / Copy to Clipboard** copies the network view to the Windows clipboard. From the clipboard it can be included in Word or other "foreign" documents. The Network View (all nodes or selected nodes only) is copied to the clipboard in a variety of formats:

- A textual description of the contained nodes (a node synopsis)
- An Windows Enhanced Metafile for high quality graphics to be used in reports. Depending on the processing capabilities of the target application, results may sometimes be less than optimal.
- A bitmap file that has more accurate layout and fonts, but less quality when printed.

In other applications (Word, PowerPoint, etc) a selection or all of these formats are offered via **Paste Special.**

SAVE NETWORK VIEW AS GRAPHIC FILE

You can save your Network View as a graphic file. You can insert this file into reports, Word, PowerPoint, etc. Choose **Network / Save as Graphics File**.

This function does not save the network as a reusable structure for import to other HUs. To accomplish this, visit chapter "To export the code network."

When exporting your project in HTML format (see "HTML Export"), network views by default need to be embedded in emf format. If you want to use a different format, you can change the entry in the raw html file and choose any other of the above listed formats.

Link Management

The Code-Link and the Hyper-Link Managers (see "The Hyper-Link Manager") offer a very efficient way to review and edit first class links (code-code links and quotation-quotation link, also referred to as hyperlinks).

Links can be edited, flipped, and removed, and a Network Editor can be opened on selected links, e. g., all nodes affected. A comment can be viewed and edited for the selected link. Last but not least, and typical for all Object Managers, links can be sorted by criteria such as the target or source object, the relation used, etc.

Changes made to the links are immediately displayed in any Network Editor that currently display the links.

The XML Explorer offers a number reports to export overviews and lists of the links you have created (see "Working with Style Sheets."

The Link Managers

The two figures below show a Code Link Manager and a Network View opened on two selected links. In the left figure the two links are selected and Flip Link from the context menu is selected. The right figure displays the effect.

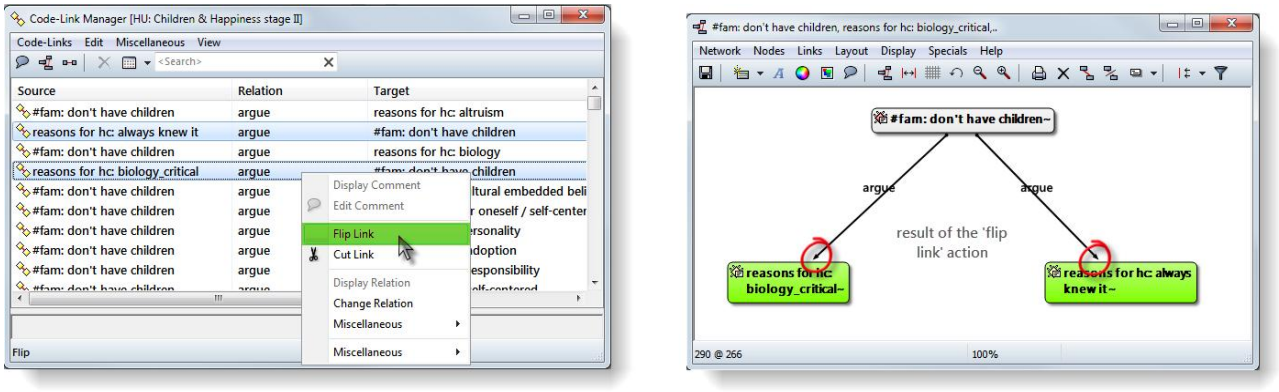

Code-Link Manager [HU: Children & Happiness stage II]
Code-Links Edit Miscellaneous View
Source Relation Target
#fam: don't have children argue reasons for hc: altruism
reasons for hc: always knew it argue #fam: don't have children
#fam: don't have children argue reasons for hc: biology
reasons for hc: biology_critical argue
Display Comment
Edit Comment
Flip Link
Cut Link
Display Relation
Change Relation
Miscellaneous
Flip
#fam: don't have children, reasons for hc: biology_critical,..
Network Nodes Links Layout Display Specials Help
#fam: don't have children~
argue
argue
result of the 'flip link' action
reasons for hc: biology_critical~
reasons for hc: always knew it~
290 @ 266
100%

Figure 296: Flipping two links in the Code-Link Manager

The search field allows you to search for a word or string of characters in the source, relation and target column.

Via the tool bar you can open an editor to write a comment for a link, open a network on one or more selected links, open the suited relation editor, deleted one or more selected links or change the view option.

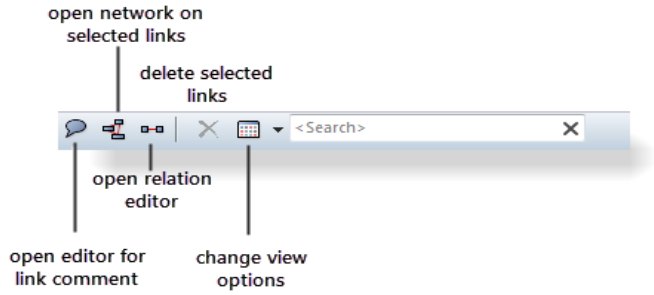


Figure 297: Link-Manager tool bar

The Relation Editors

The two Relation Editors, one for code-code relations and one for hyperlinks (quotation-quotation relations) allows the creation, display, and editing of relations. Explicit relations can only be used when connecting codes to codes or quotations to quotations. Connections between codes and quotations, memos and quotations, memos and codes, and families and their members cannot be named and specified by the user.

The relations editors already include a set of default relations. You can modify these entries at any time, translate them to your language, change the labels or the menu text, modify the line color, etc.

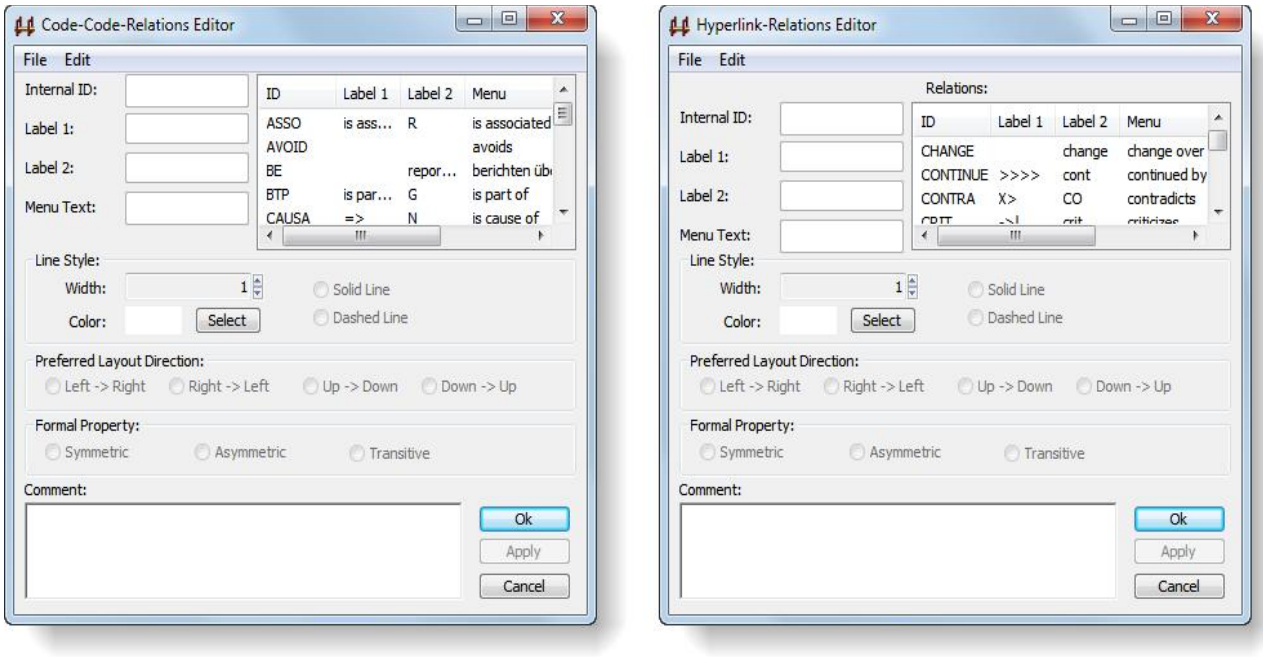


Figure 298: The Code-Code and the Hyperlink Relation Editors

Cosmetic and descriptive as well as structural aspects of relations can be edited with the Relation Editor.

Cosmetics

Cosmetic aspects include the label used when displaying links in a Network Editor; the menu text displayed when creating a connection; and the width, solidity, and color of the line connecting the nodes linked with this relation.

Preferred Layout Direction

A more sophisticated "cosmetic" property is the preferred layout direction. By using this relation characteristic, the user can assert some control on the

automatic layout algorithm. Indeed, this option justifies the name "semantic layout."

Formal Property

The formal property associated with a relation has a cosmetic effect and it controls the "procedural semantics" of the semantic operators in the Query Tool. When you want to utilize the semantic operators (SUB, UP, SIB), transitive relations need to be used.

Comment

As with all entities in ATLAS.ti, a comment can be attached to a relation. The text entered as a relation comment is displayed within a Network Editor after opening a context menu on a link, or when selecting **Display Relation**.

Bear in mind that a comment written for a relation is different from a comment written for a *link*. The comment for a relation is of a global nature and defines the relation type: e. g., what is meant by the relation "is associated with." A *link* using this relation connects two specific codes. When writing a comment for this link, the meaning is local and explains why two codes were connected using this relation.

How To Edit Relations

The Relation Editor is available from the main menu **Network**, or can be launched from the Network Editor's **Links** menu.

You can change the properties of relations. If these relations are already in use by the currently loaded HU, changes will be stored along with the HU when saving it.

- Open the Relation Editor: **Networks / Edit Relations** and select whether you want to open the code-code or the hyperlinks relation editor.
- In the list of relations, click on the relation to be edited.
- Change any of the values.
- Click on **Apply**.

If you open the Relation Editor from within a Network Editor, all changes are "broadcast" to the editor and you see the changes in the display of the affected links.

When opening the Relation Editor from the main menu, all but the preferred layout direction settings are realized immediately in all currently open Network Editors.

How To Create New Relations

User-defined relations are only available for code-code or quotation-quotation links. All other links use "hard-wired" relations (like the ones between quotations and codes).

New relations are stored together with the HU in which they are used. When starting ATLAS.ti, the default relations as defined in the file *default.rel* are loaded. This file is located in the user system folder that can conveniently be accessed via **Tools / Explorer / User System Folder.** When creating new relations, it is suggested that you save these relations to the *default.rel* file. If desired, different REL files can be created and loaded.

New relations can be created when linking codes or quotations, or independently of any linking activity. In both cases, entries are created with the Relation Editor.

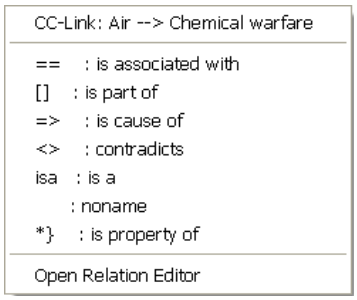

CC-Link: Air --> Chemical warfare
== : is associated with
[] : is part of
=> : is cause of
<> : contradicts
isa : is a
: noname
*} : is property of
Open Relation Editor

Figure 299: Relations

When linking codes or quotations, select the option **Open Relation Editor** instead of one of the offered relations. Or, select **Networks / Relation Editor** from the main menu.

In the Relation Editor, select the menu option **Edit / New Relation**.

Enter a short unique ID for the relation you want to create. The default are capital letters, but it is not necessary to use capital letters. Just remember that each relation needs a unique ID. Based on this information, ATLAS.ti ensures that none of the relation is overwritten by any other relation.

Next, enter a label 1, a label 2, and a menu label.

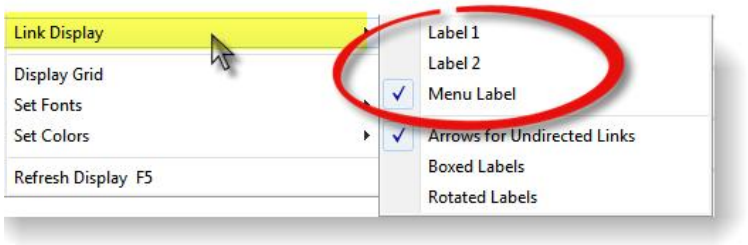


Figure 300: Display options for links in network views

In the Network Editor, you have three options to display the name of the relation (see Figure 300). As a view option, you can either display label 1, label 2, or the menu label. If there is sufficient space in the network, you can select to display the menu label, which is usually longer. Choose an abbreviation for labels 1 and 2 as a display option when space is limited.

Choose a symbol for label 1, a short word for label 2 and a longer name for the menu label. Or: enter nothing for label 1, an English language name for label 2, and a label in your native language for the menu label.

The menu label equals the menu text. The text entered in the field 'Menu Label' is used in the relation menu and as a label. In addition, the menu text is also used when outputting networked codes in the form of quasi sentences (**Codes / Output / Code Hierarchy** or **Code Neighbors**).

Next select the line style (width, color, solid or dashed).

If you wish, you can specify the preferred layout direction that is used to automatically draw the picture when opening a Network View on an object.

The final attribute to enter is the "formal property" of the relation: "transitive," "symmetric," or "asymmetric."

A transitive relation is a directed link like "is part of", " is reason for", "is a". Both symmetric and asymmetric relations are non-directed links. An example of a symmetric link is "is associated with"; "contradicts" is an example for an asymmetric link.

Optionally, you can describe the newly created relation in the text pane at the bottom of the Relation Editor.

In order to save the new relation, select **File / Save** from the Relation Editor menu. A file dialog window opens. The suggested file name is *default.rel*.

It is recommended to use this file as your standard repository for relations. It is possible to create different sets of relations by entering a new file name (see Managing Relations" below).

Create sets of relations that reflect your methodology

Managing Relations

Using the Relation Editor, different sets of relations can be created and stored in separate files (using **File / Save Relations**). For instance, you could have a set

of relations related to argumentation theory, or a set based on Grounded Theory relations. When starting ATLAS.ti, the default relation set is loaded (i. e., the file default.rel).

If you have created a new set and stored it in a new REL file, you need to load it after starting ATLAS.ti. To do so, open the Relation Editor and choose **File / Load Relations**. This adds the new relation set to the already loaded default set.

If you want to delete relations from the default set, or from any newly created set, select a relation in the Relation Editor and choose the menu option **File / Delete Relation**. When you have removed all unwanted relations and want to make the changes permanent, you need to save the set (select **File / Save Relations)**.

Cosmetics - Network Display Properties

There are numerous options available to alter the appearance of nodes, links, and even the background.

However, all settings created using the Display menu of Network Editor are lost after closing the editor. If you want to change colors and fonts globally for all Network Views, you need to change these settings under **Networks / Preferences.**

Colors

You can set the Network Editor's background and the color of nodes. Choose **Display / Set Colors (**or click on the color circle in the tool bar) and then one of the options from the submenu. You are offered a standard color chooser dialog from which to pick a color.

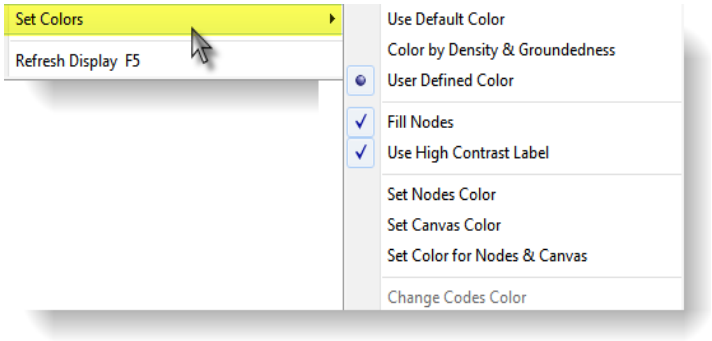


Figure 301: Set Colors sub menu

If you have colored your codes, you can display these colors either as node label or as node color in a network view. To do so, click on the color circle in the tool bar and select the appropriate option:

If you have used a dark color to color a code, then use the "High Contrast" option to display the node label in white.

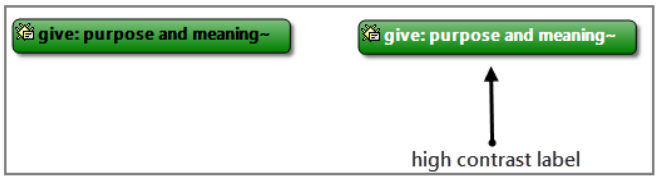


Figure 302: Low and high contrast label display

The option **Color by Denisity & Groundedness** visualizes the coding and modeling state of the codes. This mode affects code nodes only. Code nodes are automatically assigned a color according to their groundedness and density. Groundedness of a code (i. e., the number of associated quotations) increases the yellow part of the node color (note "name of suspect" in the figure below). Density (i. e., the number of links to other codes) increases the blue part ("name of suspect: Cohen" is the winner in the figure below). In the Code Manager, high-density codes are indicated in red, high frequency codes in blue. This makes codes that are heavily or seldom used for coding or model building easily identifiable.

This **Auto-Color-Mode** has also an effect in the Code Manager in Details view:

Name	Grounded	Density	Created	Author
#fam: 1 child~	23	0	13.12.201...	Susa
#fam: 2 children~	10	0	13.12.201...	Susan
#fam: 3 or more ...	9	0	13.12.201...	Susan
#fam: don't have ...	20	26	06.01.201...	Susan
#fam: don't want...	15	0	13.12.201...	Susan
#fam: have childr...	75	46	13.12.201...	Susan
#fam: no children...	5	0	13.12.201...	Susan
#fam: sex: daugh...	15	0	06.01.201...	Susa

Figure 303: Auto-color mode

The bars for groundedness and density are colored according to their frequency.

You can also activated the the auto-color option under the Views menu in the Code Manager.

Fonts

The font used for nodes and links can be set independently choosing **Display / Set Fonts** from the Network Editor's main menu.

Display Of Nodes

Nodes can be displayed either in a flat or 3D-view, with rounded borders, with or without borders, and a gradient shading.

To select any of the four options, click on the Display button shown below.

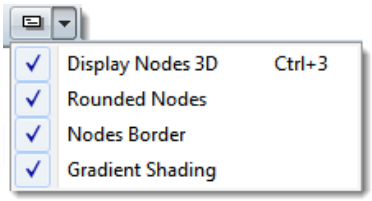


Figure 304: Display options for nodes

Resizing Nodes

Nodes can be individually resized.

Just left-click on a node and drag the node box into the desired position.

Node And Link Appearance

Under the Display menu of the Network Editor you find a large variety of options to alter the display characteristics of nodes and links. Some of these options affect all nodes regardless of their type. Other options change the display of certain node types only.

NODE ICON

The node type icon can be switched on and off for all nodes by selecting the menu option **Display / Use Node Bitmaps**, or by pressing the key combination **Ctrl-Alt-B**. The small image used as a node icon increases the distinctiveness of the nodes, especially when a mixture of node types exists in a Network View. Nonetheless, when space runs low, you may prefer to switch off the icons.

A node can be displayed with a "3D" border, or with a drop shadow. To switch between the 3D and the shadowed view, select the menu option **Display / Display Nodes 3D** or press the key combination **Ctrl-3**.

NODE VERBOSITY

You have several options to control the amount of information displayed in a node. Quotes can be displayed with just their ID or with the complete selection of text they represent.

Figure 305: Sub menu Quotation Verbosity

Of course, to decide which level of verbosity makes sense, you need to examine how many nodes populate the Network View and the overall size of the text.

To change the verbosity of quotes, select the menu option **Display / Quotation Verbosity.**

Miscellaneous Network Procedures

Theory Transfer

Theory transfer supports a deductive approach to analyzing qualitative data and the application of "proven" theories to other domains.

By "Theory Transfer" we mean the re-use of codes, relations, and code networks produced in one project in subsequent projects.

Two different strategies are supported:

The re-use of a "flat" (unstructured) list of codes including names, code definitions, author, date of creation and modification in other HUs.

The transfer of rich representations of codes (including the connections between codes).

"FLAT" CODE MIGRATION

The first strategy--using unstructured code lists--includes the output of all or a selection of codes from one HU into a file and the later import of this code file into another HU. Step-by-step instruction is provided elsewhere (see "Transferring Codes from Other Projects").

The method of flat code migration is useful when working in teams and when a code list is first developed on one computer. This way, other team members can easily import the agreed upon list of codes into their HUs. Other potential applications for this function include testing reliability, or starting deductive structural theory work from scratch. When testing for reliability, a given code base can be used on the same material by different authors.

SEMANTIC NETWORK MIGRATION

This method transfers a relatively complete "theory" into a new project. Like the flat code migration method described above, two steps are necessary. First, the network of codes needs to be exported and saved as an external file. Second, this file is imported into a new HU (or an existing HU).

TO EXPORT THE CODE NETWORK

- Load the HU that contains the "theory" you want to migrate.
- If needed set the code filter to contain only those codes to be processed in the next step.
- Choose **Project / Export / Code Network** from the HU Editor's main menu.
- Enter a name for network file. By default, the name of the HU with the extension NET is offered.

The file contains a textual description, which can be processed by the import step described in the following directions.

TO IMPORT A CODE NETWORK

- Load the HU into which the network of codes shall be imported.
- Choose **Project / Import /Code Network** from the HU Editor's main menu.
- Select a network file (extension .NET).

CONFLICT RESOLUTION

When importing networks into an HU that already contains networked codes, the following internal strategy is applied to avoid conflicts: Existing codes and links are not modified, inconsistent links are not created (e. g. direct cycles).

CLEANING UP

While the situation of importing homonyms is controlled by the conflict resolution strategy, the system cannot automatically handle unwanted synonyms. Especially when importing codes and networks created by others into a non-empty HU, such synonyms (e. g., "man" and "mankind") might clutter the name space of codes. You can clean up by merging the synonyms (see "Merging Codes").

SCALED THEORY TRANSFER

Besides the two strategies described above, you can use the HU merge procedure to gain more control over what components are to be transferred. Code lists with "rich" representations of codes can be extracted from a given "theory template" HU; Network Views, memos, and/or PDs may be included. This method also has the advantage that it is a "one-pass" procedure and there is no need to create extra files containing the codes or networks to be transferred. Unlike the Semantic Network Migration method described above, it also allows you to assert more control over how conflicts with existing codes and links are to be resolved.

For details please refer to "Merging Hermeneutic Units."

Clean up synonymous codes using the Code Merge procedure. The essentials of merging codes have already been described elsewhere (see "Merging Codes").

MERGING CODES USING THE NETWORK EDITOR

Below we describe how merging codes can be accomplished in a Network Editor.

The figures below illustrate that the merging of two or more codes is not a trivial task, because all of their references, links, and comments need to be transferred to the target code in a consistent manner.

Using the network method is the "inverse" procedure of the list method described earlier (see "Merging Codes Using the List Method"). Using the list method, you select the target code first. Then you choose the codes to be merged. Merging codes in a network editor is the inverse. You select the codes to be merged first and then you select the target code.

TO MERGE CODES USING THE NETWORK EDITOR

Open or create the Network View that contains the codes to be merged. Here: "effects of parenting: more stress / more burden / more expenses / more work". They should be merged into a more general code named: "effects of parenting: more.... (neg)".

Select all "source" codes to be merged into one target code. Make sure that the target node is already visible in the Network Editor.

Choose **Nodes / Merge Codes** from the Network Editor's main menu.

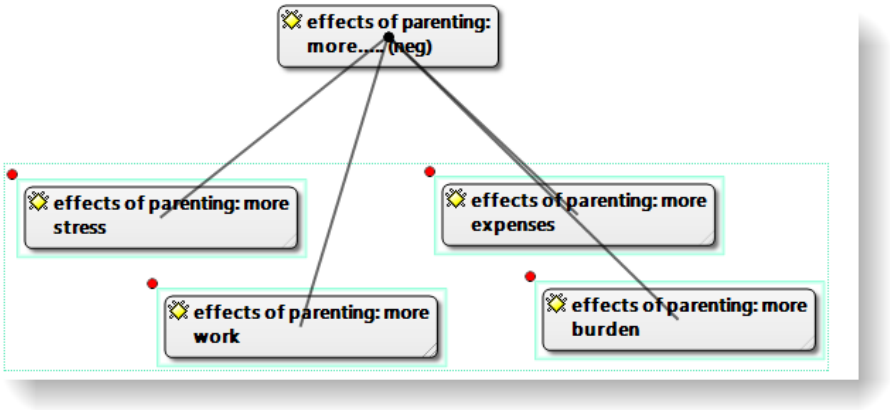

effects of parenting: more.... (neg)
effects of parenting: more stress
effects of parenting: more expenses
effects of parenting: more work
effects of parenting: more burden

Figure 306: Merging codes in a network view editor

Move the mouse to the target node and click the left mouse button.

After the merge: The four selected codes have been merged into the target code"effects of parenting: more... (neg)".

The target node "inherits" all the references, i. e., quotations, links to other codes and memos, and comments, into the incorporated node(s).

Network Views As Graphical Tables Of Contents

If you use graphical PDs, you can use Network Views to display "thumbnails" (small-sized copies) of these PDs. See for example Figure 287.

Create a new Network View by choosing **Networks / New Network View** from the HU Editor's main menu.

Change the size of the thumbnail images

- Import some graphical PDs (see " Nodes").
- From the Network Editor menu, choose **Display / Full Image for PDs**.
- Rearrange the nodes in the Network View and save the network view.

You can configure the size of the thumbnails:

- In the network view editor, select **Specials / Preferences**, tab: **Nodes**. The standard width is set to 200.

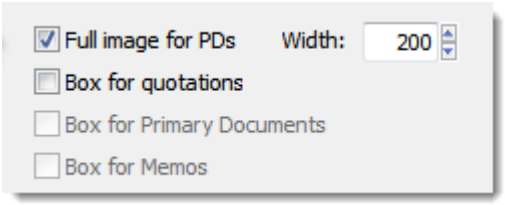


Figure 307: Preference settings for thumbnail PDs

- Change the width and click Apply. Close the Network Preferences window.

Hypertext

A network with text (or other media) as nodes is often referred to as a *hypertext*. The original sequential text is de-linearized, broken down into pieces that are then reconnected, making it possible to traverse from one piece of data to another piece of data regardless of their original positions.

The procedures described so far have focused on the creation of *code* networks. Direct linking of data-segments (quotations) to other data-segments offers similar flexibility in choosing and defining relations. Almost all of the editing functions described for code networks can also be used when connecting two or more quotations.

Code-code and quote-quote links are the only types of network connections that allow you to assign a name to the connection that appears on the line or arrow that runs between the objects.

Representing The "Rhetoric Of Text"

While a code offers fast access to sets of data segments, it defines only a simple relation between them, namely ***equivalence****.*

Hyperlinks, which directly relate data segments, express more differentiated relationships between quotations: contradiction, support, illustration, etc.

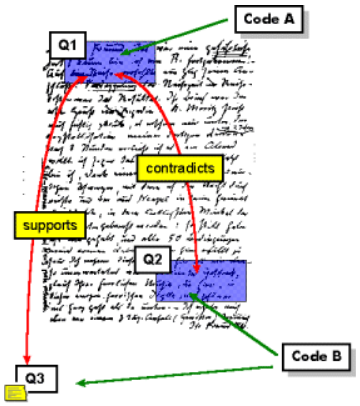


Figure 308: Hypertext captures the macrostructure of a text

No code is needed to connect quotation Q1 with one that it contradicts (Q2).

Cross-references between text passages are very common even in conventional media like books - just think of religious and juridical texts, literature, journals etc. Footnotes and endnotes are another common deviation from the pure linearity of sequential text. However, in conventional media, not much navigational support is provided for "traversing" between the pieces of data that reference each other.

Today's largest hypertext system: the World Wide Web

Computer-related hypertext applications include, for example, online help systems that display operational information in suitable small chunks (compared to lengthy printed information), but with a considerable amount of linkage to other pieces of information. A well-known hypermedia structure is the **World Wide Web** with its textual, graphical and other multimedia information distributed world-wide.

Benefits Of Hypertext

What are the advantages of direct connections between text segments, compared to the traditional procedures of qualitative text analysis?

What Codes Cannot Do

Maybe we should ask a different question first: How can you express that statement X in text A *contradicts* statement Y in text B, or how can you retrieve all contradictory statements of a specific utterance if all you have is codes and their associations with the data?

Pure classification is not always adequate

The "code & retrieve" paradigm, which is so prevalent for many systems supporting the qualitative researcher, is not adequate for certain types of

analysis. In formal terms, attaching codes to chunks of data creates named sets of segments with almost no internal structure. This is not to say that partitioning lots of text segments into sets is not useful. On the contrary, classification leads to manageable amounts of segments that later can be retrieved with the help of the attached code words. But this may not be the only way you want to look at your data.

Hypertext makes text-text relations explicit

The concept of hypertext introduces explicit relations between passages. These links have to be built manually and result from an intellectual effort. The system cannot decide for you that segment x is in contradiction to segment y. But after the work of establishing the links, you can make semantically richer retrievals: "Show statements contrary to statement x." Hypertext allows you to create different paths through the data you are analyzing. For example, you may create a time line different from the strict sequence of the original text.

Graphical Hyperlink Maps

ATLAS.ti incorporates procedures for creating and browsing hypertext structures. It allows for two or more quotations being connected using *named* relations. Further, you can create graphical maps (using Network Views) to make parts of your hyperspace accessible in a comfortable way. Hyperlinks may connect quotations (textual, graphical, multimedia) across documents (inter-textual links) or may link segments within the same primary document (intra-textual links). The natural boundary for hyperlinks, like all structures in ATLAS.ti, is the Hermeneutic Unit.

The hypertext Network View to the right displays quotations in maximum "verbosity" set to "full text." Other node types can also be included in the Network View, like the memo in the upper left corner.

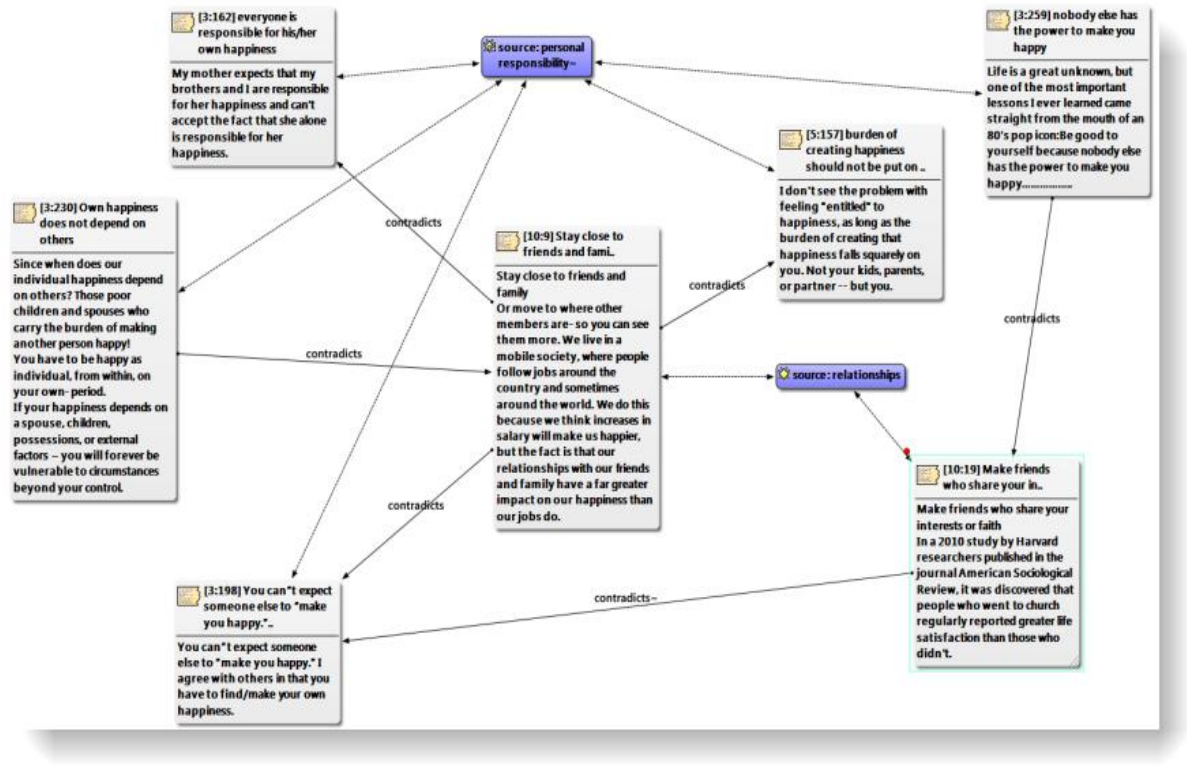

[3:162] everyone is responsible for his/her own happiness
My mother expects that my brothers and I are responsible for her happiness and can't accept the fact that she alone is responsible for her happiness.
source: personal responsibility
[3:259] nobody else has the power to make you happy
Life is a great unknown, but one of the most important lessons I ever learned came straight from the mouth of an 80's pop icon:Be good to yourself because nobody else has the power to make you happy.....
[5:157] burden of creating happiness should not be put on ..
I don't see the problem with feeling "entitled" to happiness, as long as the burden of creating that happiness falls squarely on you. Not your kids, parents, or partner -- but you.
[3:230] Own happiness does not depend on others
Since when does our individual happiness depend on others? Those poor children and spouses who carry the burden of making another person happy!
You have to be happy as individual, from within, on your own- period.
If your happiness depends on a spouse, children, possessions, or external factors -- you will forever be vulnerable to circumstances beyond your control.
[10:9] Stay close to friends and fami..
Stay close to friends and family
Or move to where other members are- so you can see them more. We live in a mobile society, where people follow jobs around the country and sometimes around the world. We do this because we think increases in salary will make us happier, but the fact is that our relationships with our friends and family have a far greater impact on our happiness than our jobs do.
source: relationships
[10:19] Make friends who share your in..
Make friends who share your interests or faith
In a 2010 study by Harvard researchers published in the journal American Sociological Review, it was discovered that people who went to church regularly reported greater life satisfaction than those who didn't.
[3:198] You can"t expect someone else to "make you happy."..
You can"t expect someone else to "make you happy." I agree with others in that you have to find/make your own happiness.
contradicts
contradicts
contradicts
contradicts
contradicts
contradicts
contradicts

Figure 309: A network of quotations

General Procedures

STAR OR CHAIN CONNECTIONS

A hyperlink chain connects quotations sequentially

When linking quotations, you have the option to create a "chain", a "star" or a combination of both. Below, a chain and star connection are illustrated.

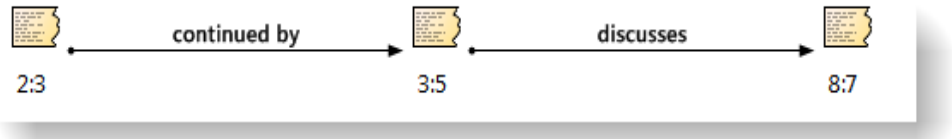


Figure 310: A hyperlink chain

When creating this chain, the quotation 2:3 served as a source quotation and was linked to the target quotation 3:5. In order to continue the chain, the target quotation 3,5 became the source quotation and was linked to the new target quotation 8:7..

A hyperlink star connects many quotations from one source quotation:

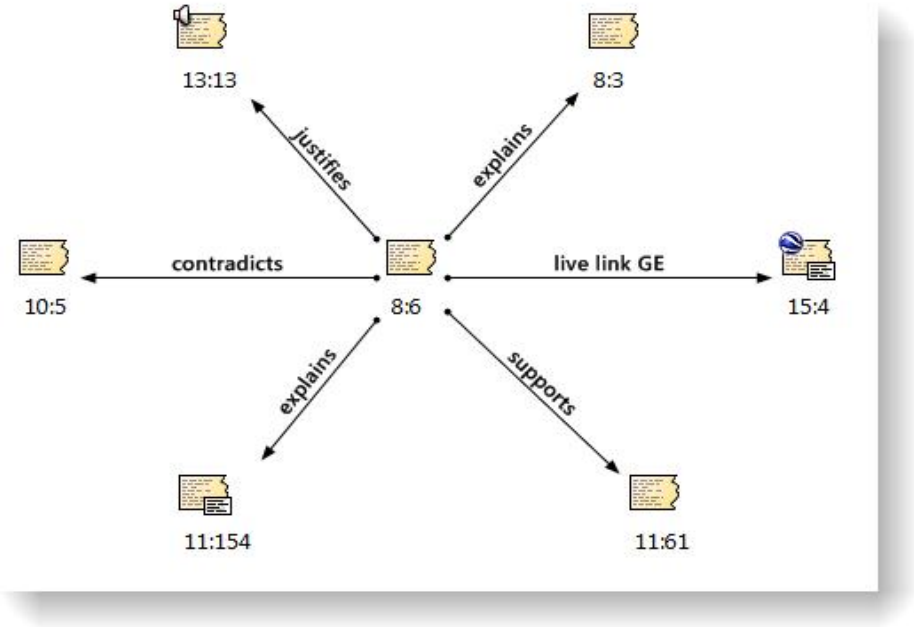


Figure 311: A hyperlink start

When creating a star, there is one source quotation and multiple target quotations. In the above example, the source quotation is 8:6, which is linked to five target quotations via a number of different relations.

Hyperlinks In The Quotation Manager

In list views, linked quotations are prefixed with angle brackets.

All hyper-linked quotations can easily be recognized in the Quotation Manager. All source quotations are marked with an opening angle bracket <, all target quotations with a closing bracket >. If a quotation is both, source and target (as the case when creating chains), then both brackets are used as prefix <>.

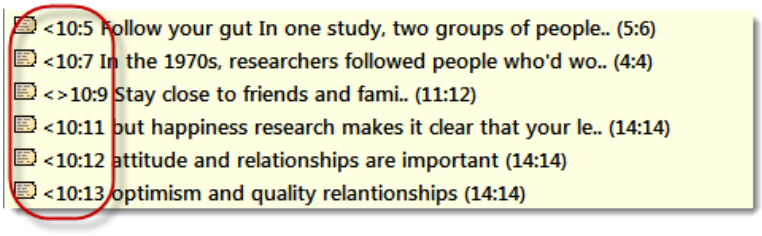

<10:5 Follow your gut In one study, two groups of people.. (5:6)
<10:7 In the 1970s, researchers followed people who'd wo.. (4:4)
<>10:9 Stay close to friends and fami.. (11:12)
<10:11 but happiness research makes it clear that your le.. (14:14)
<10:12 attitude and relationships are important (14:14)
<10:13 optimism and quality relantionships (14:14)

Figure 312: List of linked quotations

The margin is an optimal work space for navigating hyperlinks

Hyperlinks In The Margin Area

When working with hyperlinks, it is advisable to set the margin display options as follows:

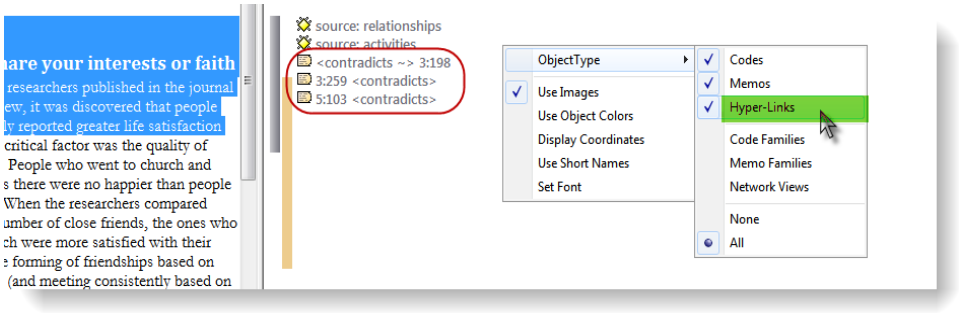


Figure 313: Display of hyperlinks in the margin area

To open this context menu, right click on a blank space in the margin area.

Creating Hyperlinks

ATLAS.ti offers a variety of options for creating and traversing hypertext links. Similar to the linking of codes, you may create hyperlinks in a the Network View editor (see "Linking Nodes"). In addition, hypertext links can be created "in context", or via Drag & Drag in the Quotation Manager and in the margin area.

Creating Hyperlinks Using The Context Menu

TO CREATE A CHAIN:

Select a data segment as source or an already existing quotation.

Right click on the selection or the quotation and select the option **Create Link Source** from the context menu. Alternatively, you can click on the *Source Anchor* button in the primary document toolbar.

Select a target segment or an existing quotation as target, right click and select the option **Create Link Target** from the context menu. Alternatively, you can click on the *Source Anchor* button in the primary document toolbar.

If you select a data segment as source or target that was not yet a quotation, ATLAS.ti automatically creates a quotation from it.

A list of relation pops up. Select a relation to link the two selected quotations. If none of the existing relations fit, create a new relation by selecting **Open Relation Editor** (see "How to create new relations").

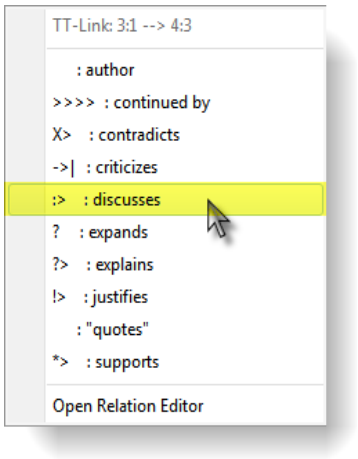


Figure 314: Select a relation to link the source with the target quotation

Next, select the option **Chain: .....** to link a next data segment to the current target quotation.

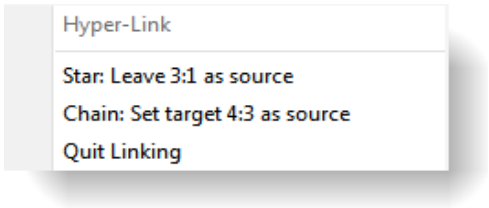


Figure 315: Select "Chain: Set target x:x as source" to link another quotation to the current target quotation

Select **Quit Linking** to end the chain.

TO CREATE A STAR:

Proceed as explained above "To create a chain:", but select the option **Star: Leave x:x as source.** Then the next quotation is linked to the current source quotation. For your information, the quotation IDs for the current source and target quotations are listed in the menu.

Creating Hyperlinks In The Quotation Manager

This method can be applied to connect one or more existing quotations to one target quotation.

- Select one or more source quotations in the Quotation Manager (multiple selections can be done in the standard way).
- Hold down the left mouse button and drag the quotation(s) to a target quotation in the Quotation Manager.

- Release the left mouse button. The Relation menu opens and you can specify the relation to be used for the hyperlinks.
- The new hyperlinks are then created.

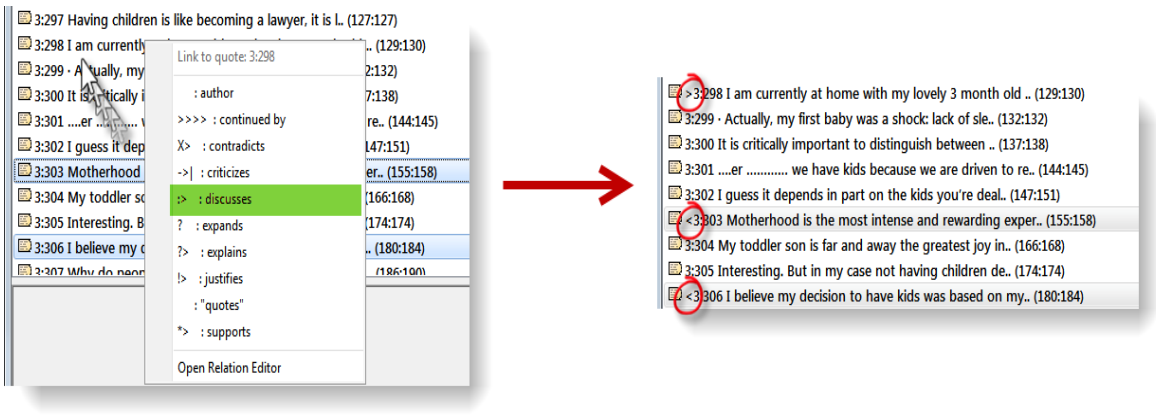

Link to quote: 3:298
: author
>>>> : continued by
X> : contradicts
->| : criticizes
:> : discusses
? : expands
?> : explains
!> : justifies
: "quotes"
*> : supports
Open Relation Editor
3:298 I am currently at home with my lovely 3 month old .. (129:130)
3:299 · Actually, my first baby was a shock: lack of sle.. (132:132)
3:300 It is critically important to distinguish between .. (137:138)
3:301 ....er ..... we have kids because we are driven to re.. (144:145)
3:302 I guess it depends in part on the kids you're deal.. (147:151)
3:303 Motherhood is the most intense and rewarding exper.. (155:158)
3:304 My toddler son is far and away the greatest joy in.. (166:168)
3:305 Interesting. But in my case not having children de.. (174:174)
3:306 I believe my decision to have kids was based on my.. (180:184)

Figure 316: Select quotations, drag and click target quotation in the Quotation Manager

Creating Hyperlinks In Margin Area

Like the method described above, creating hyperlinks in the margin area is best suitable for connecting two quotations that are in close proximity to each other.

Select a quotation bar in the margin area.

Hold down the left mouse button and drag the bar onto another quotation bar.

Release the left mouse button. The Relation menu opens. Select a relation. The linking procedure ends here.

Dropping a bar onto another quotation displayed alongside a bar, replaces the existing hyperlink.

Utilizing The Multi-Document View For Hyperlinking

The multi-document view makes it easy to set hyperlinks.

Load two documents side-by-side.

Left click a quotation bar in the active region, drag the mouse to a quotation bar in the same or a neighboring region, release the left mouse button and select a relation (see Figure 317 below).

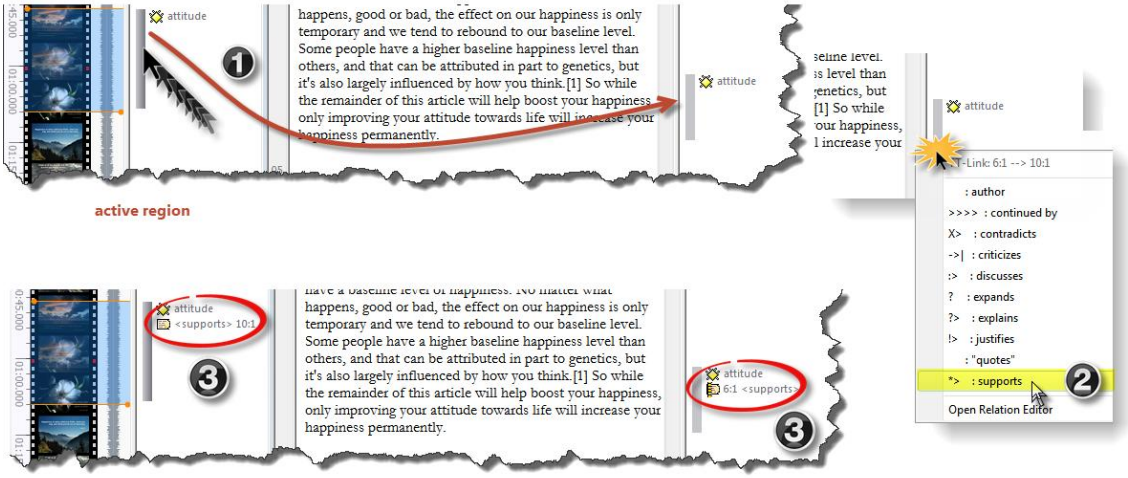

attitude
happens, good or bad, the effect on our happiness is only temporary and we tend to rebound to our baseline level. Some people have a higher baseline happiness level than others, and that can be attributed in part to genetics, but it's also largely influenced by how you think.[1] So while the remainder of this article will help boost your happiness only improving your attitude towards life will increase your happiness permanently.
active region
<supports> 10:1
6:1 <supports>
T-Link: 6:1 --> 10:1
: author
>>>> : continued by
X> : contradicts
->| : criticizes
:> : discusses
? : expands
?> : explains
!> : justifies
: "quotes"
*> : supports
Open Relation Editor

Figure 317: Creating hyperlinks across regions

If you double-click on a hyperlink, a window pops up providing information on the linked quotation and you can click inside to visit this quotation. Or use the short-cut **Ctrl + double-click** to immediately jump to the linked quotation. ATLAS.ti loads the document containing the linked quotation into the neighboring region and you can view the linked segments side-by-side (see also "Traversing Hyperlinks."

Modifying Hyperlinks

There are two place to modify existing hyperlinks, the Network Editor and the Hyperlink Manager (see "Link Management").

TO MODIFY LINKS IN THE NETWORK EDITOR

- Open a network view on a hyperlinked quotation (e. g., by right clicking on a quotation and then selecting the option **Open Network View** from the context menu).
- In the Network Editor, right click on a link label and select **Change Relation** from the context menu.
- The relation menu pops up. Select a different relation.

Defining New Hyperlink Relations

The procedure for defining or editing hypertext relations is equivalent to the methods described for editing code-code relations. You may either define a new relation by choosing the bottom option from the list of relations when actually creating a link, or you may use a hyper-links relation editor, that is

identical to the code-code relations editor (see "How to create new relations"). Newly defined or edited relations must also be saved to disk.

Traversing Hyperlinks

Media-type quotations can be distinguished easily by their icons. These icons may be used in the margin area, the Object Manager, the HU Explorer, the Crawler, and in Network Views. The figure below shows the media types of hyperlinked quotations in the margin. From top to bottom these are: text, video, audio, image and Google Earth hyperlinks.

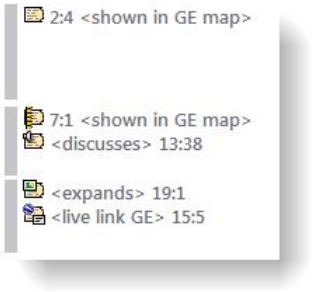


Figure 318: Media types for hyperlinks

TO TRAVERSE HYPERTEXT LINKS USING THE MARGIN AREA

The margin area permits a very intuitive traversal of hyper links.

1. Switch on the margin area.
2. If needed, open up the properties context menu in the margin area and select **Object Types / Hyper-Links**.
3. Double-click a hyperlink displayed in the margin. The quotation to the left of the margin area is highlighted and a pop-up window displays the hyperlink's contents.

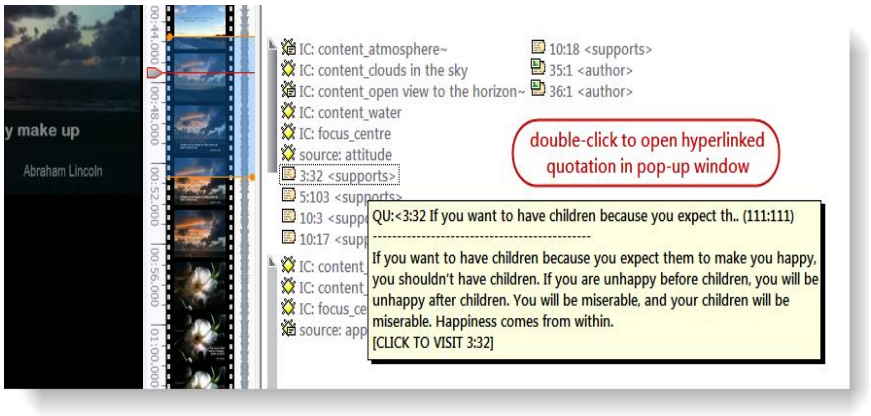

y make up
Abraham Lincoln
IC: content_atmosphere~
IC: content_clouds in the sky
IC: content_open view to the horizon~
IC: content_water
IC: focus_centre
source: attitude
3:32 <supports>
10:18 <supports>
35:1 <author>
36:1 <author>
double-click to open hyperlinked quotation in pop-up window
QU:<3:32 If you want to have children because you expect th.. (111:111)
If you want to have children because you expect them to make you happy, you shouldn't have children. If you are unhappy before children, you will be unhappy after children. You will be miserable, and your children will be miserable. Happiness comes from within.
[CLICK TO VISIT 3:32]

Figure 319: Traversing hyperlinks

To display the hyperlink in context, click into the pop-up window. Clicking outside the pop-up window cancels the process.

You can also use the short-cut **Ctrl + double-click** to immediately jump to the linked quotation.

Useful Options For Hyperlinks And Quotations In The Network View Editor

To move to the text of a quotation that appears in a network, right click over the quotation node and choose **Display in Context**. You are moved to the section of the Primary Document where the quotation resides.

TO IMPORT THE NEIGHBORS OF A QUOTATION

Remove all recently imported objects with **Ctrl+Shift+Z**

The Network Editor lets you import the neighbors of selected nodes by choosing **Import Neighbors** from the Network Editor's **Node** menu (see description in section "Import Node Neighbors"). Importing the neighbors of a quotation, that is part of a hypertext, not only retrieves linked objects of type "quotations" but also yields all codes, memos and other quotations directly connected to it.

To reduce clutter by only importing neighbors that are quotations, and not codes, memos or documents, hold down the **Ctrl** key when selecting the option from the Network Editor's menu. If you want the neighbors of only one quotation imported, open the context menu of this quotation and choose **Import Neighbors**.

The Hyper-Link Manager

The Hyper-Link Manager works exactly like the Code-Link Manager, only that it is populated by hyperlinks.

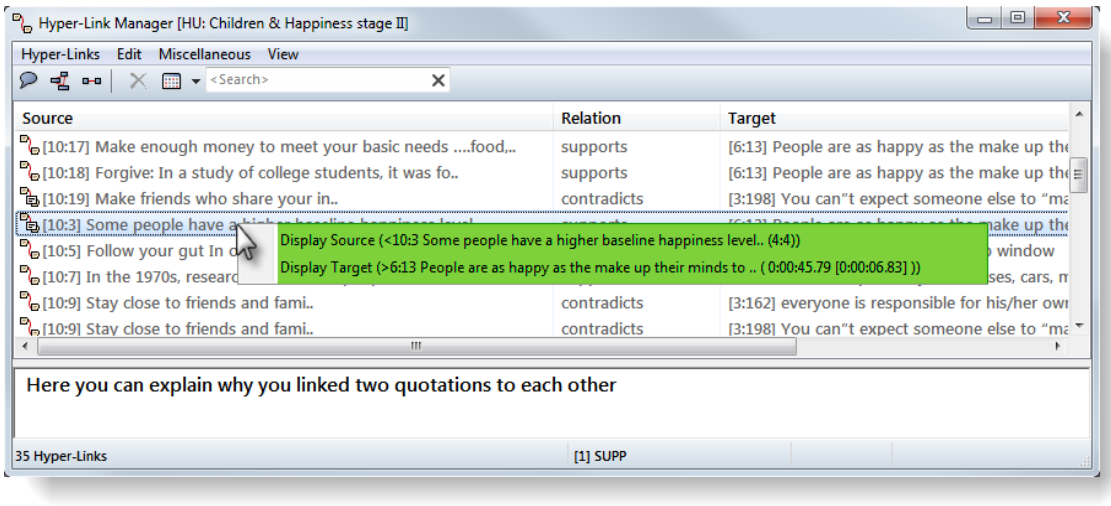

Hyper-Link Manager [HU: Children & Happiness stage II]
Hyper-Links Edit Miscellaneous View
<Search>
Source
Relation
Target
[10:17] Make enough money to meet your basic needs ....food...
supports
[6:13] People are as happy as the make up the
[10:18] Forgive: In a study of college students, it was fo..
supports
[6:13] People are as happy as the make up the
[10:19] Make friends who share your in..
contradicts
[3:198] You can"t expect someone else to "ma
[10:3] Some people have a
Display Source (<10:3 Some people have a higher baseline happiness level.. (4:4))
Display Target (>6:13 People are as happy as the make up their minds to .. (0:00:45.79 [0:00:06.83]))
[10:5] Follow your gut In c
[10:7] In the 1970s, researc
[10:9] Stay close to friends and fami..
contradicts
[3:162] everyone is responsible for his/her ow
[10:9] Stay close to friends and fami..
contradicts
[3:198] You can"t expect someone else to "ma
Here you can explain why you linked two quotations to each other
35 Hyper-Links
[1] SUPP

Figure 320: Hyperlink Manager

When double clicking a link a pop-up menu is shown. You can choose to display the source or target quotation. The content of the linked quotation is then shown in a pale yellow window. If you click into this window, the linked quotation is shown in context.

Use the XML Explorer to create a report of your hyperlinks (see "Working with Style Sheets."

CREATING NEW RELATIONS FOR HYPERLINKS

The Relation Editor has already been discussed in the context of code-code links (see "The Relation Editors"). The relation editor window for hyperlinks looks the same and can be handled in the same way as the relation editor for code-code relations. It only displays a different set of relations. To open it, select **Networks / Edit Releations / Hyperlink Relations** from the main menu.

Editing Hyperlink Comments

Use the margin area to display and edit link comments.

The links between quotations use fully qualified relations, like the links between codes and unlike the simple association between a code and a quotation. As "first-class" objects, these links can be assigned a dedicated comment.

Such a comment could explain why quotation A has been linked to quotation B. Link comments can be accessed, displayed and edited from three locations: the margin area, the Hyperlink Manager and the Network Editor.

The margin area has the advantage that it is readily available during scrolling through the primary documents. The Network Editor method offers a visual approach to accomplishing this goal. Create a network view of the hypertext nodes to facilitate this process.

TO EDIT A HYPERTEXT LINK COMMENT USING THE MARGIN AREA

Switch the margin area on. If not already selected, open up the properties context menu in the margin area and select **Object Types / Hyperlinks**.

Pop-up the context menu for a hyper link displayed in the margin. The quotation inside the primary document pane is highlighted at the same time.

Choose **Edit Link Comment**.

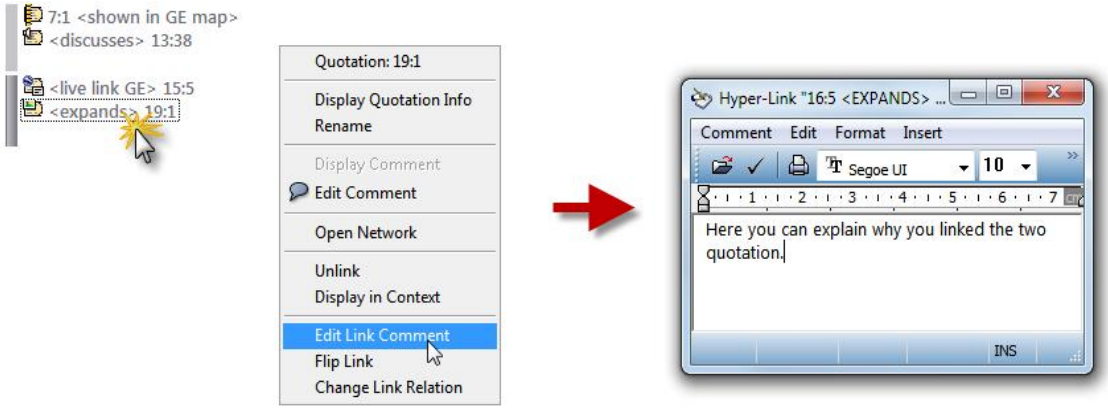


Figure 321: Commenting on a link

TO EDIT A HYPERTEXT LINK COMMENT USING THE HYPERLINK MANAGER

Open the Hyperlink Manager via **Networks / Hyper-Link Manager** from the HU Editor's main menu.

Select a hyperlink.

Edit the comment in text pane below the link list, or open a text editor by clicking the Editor button.

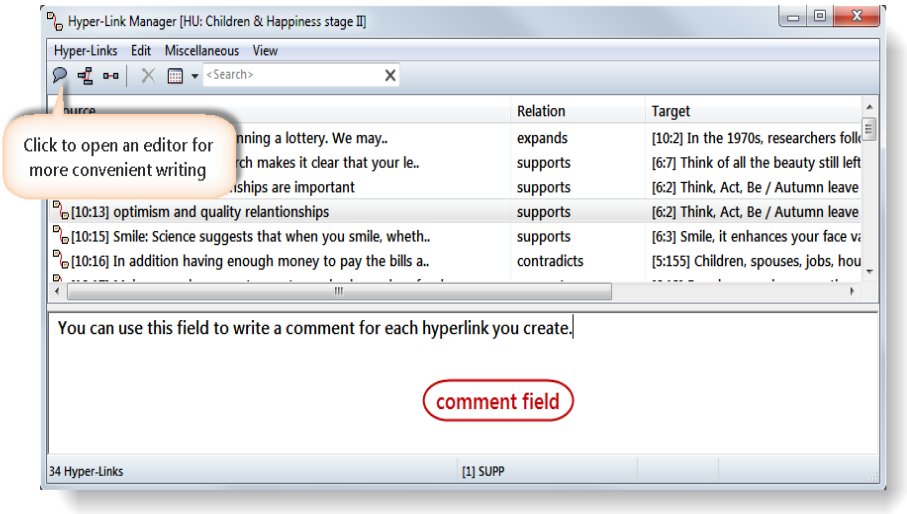

Hyper-Link Manager [HU: Children & Happiness stage II]
Hyper-Links Edit Miscellaneous View
Click to open an editor for more convenient writing
Relation
Target
expands
supports
supports
supports
contradicts
[10:2] In the 1970s, researchers
[6:7] Think of all the beauty still left
[6:2] Think, Act, Be / Autumn leave
[6:2] Think, Act, Be / Autumn leave
[6:3] Smile, it enhances your face
[5:155] Children, spouses, jobs,
[10:13] optimism and quality relantionships
[10:15] Smile: Science suggests that when you smile, wheth..
[10:16] In addition having enough money to pay the bills a..
You can use this field to write a comment for each hyperlink you create.
comment field
34 Hyper-Links
[1] SUPP

Figure 322: Writing, viewing or editing a hyperlink comment in the Hyperlink Manager

TO EDIT A HYPERTEXT LINK COMMENT USING THE NETWORK EDITOR

Open a Network Editor on a quotation establishing one end of the hypertext link.

Move the mouse pointer onto the link between two quotations and open the context menu with a right mouse button click.

Choose **Edit Comment**.

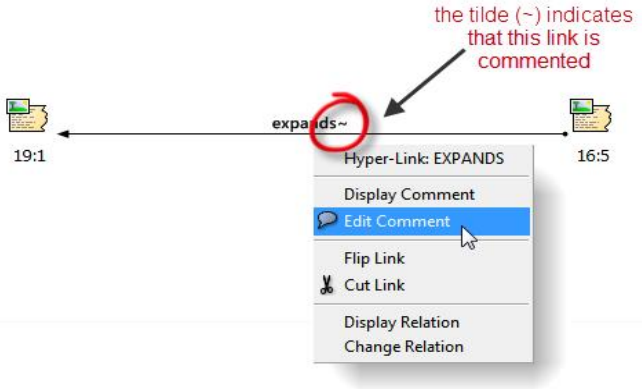


Figure 323: Editing a hyperlink comment in a network view editor

Special Tools

In this chapter a collection of miscellaneous tools is presented that do not fit well under any of the other categories. Included are tools for performing word searches in all objects and fields, for exploring the components of a HU in a hierarchically manner, and for removing redundantly coded quotations.

The Object Crawler

Use the Object Crawler to search for text and patterns in HUs, PDs, and all other entities that make up an HU. The search can be restricted to certain facets, like name, author, date, comments, and content. Regular expressions (GREP) as well as Category Search can be used as search expressions (see "GREP Search" and "Category Search").

Unlike the Text Search tool, the Object Crawler can search through all objects and fields that contain text. The Text Search tool only searches primary text documents. However, it finds all occurrences of the entered search term(s) and highlights a match at its original location. The Object Crawler stops at the first occurrence in an object and highlights the hit in the results pane of the Object Crawler window.

How To Use The Crawler

A Crawler search is a three-step procedure starting with entering a query and specifying the scope (e. g., name, comment, etc), and then selecting the object classes to be included in the search and, as the third step, displaying the results.

From the main menu, select **Tools / Object Crawler,** or click the Object Crawler button in the main toolbar.

The Object Crawler dialog starts with a page to enter the query and specify the scope:

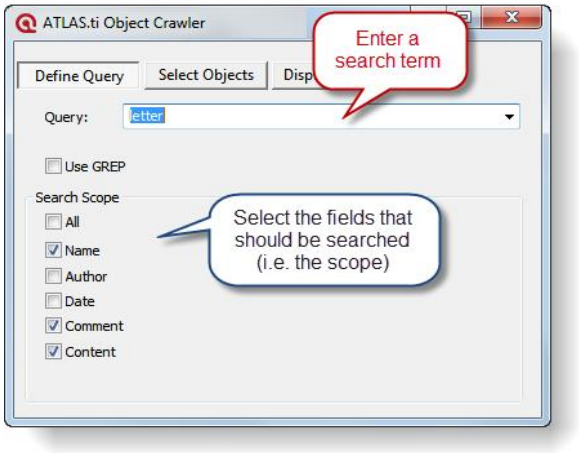


Figure 324: First step in defining a query in the Object Crawler

- Enter a query. Regular expressions and search swarms can be used (see "GREP Search" and "Category Search").
- Select the fields that should be search, the so called **Search Scope**.
- Click the **Select Objects** tab to proceed to the next step:

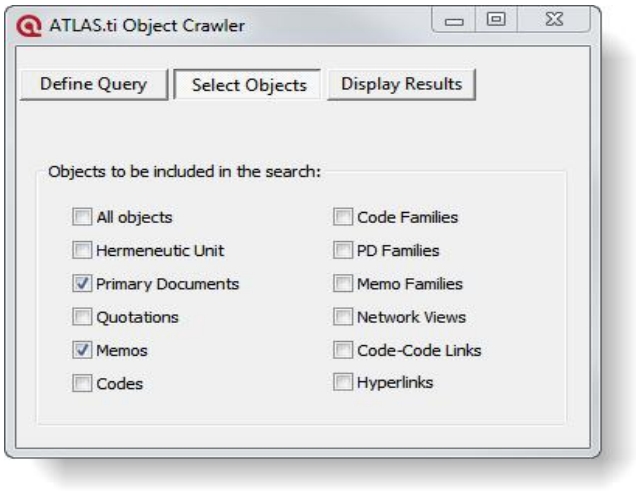


Figure 325: Step 2: Select the objects to be searched

- Select the objects to be included in the search. Clicking **All objects** checks all other check boxes.
- Proceed with the next and last step by clicking the **Display Results** tab.

All objects for which a corresponding match has been found are displayed in the upper list pane. The **Field** column displays the object type in which the match appeared. The selected hit – a PD - in the figure below had its match within the content of the PD. The hit itself is emphasized by red-colored font and with angle brackets for easy detection.

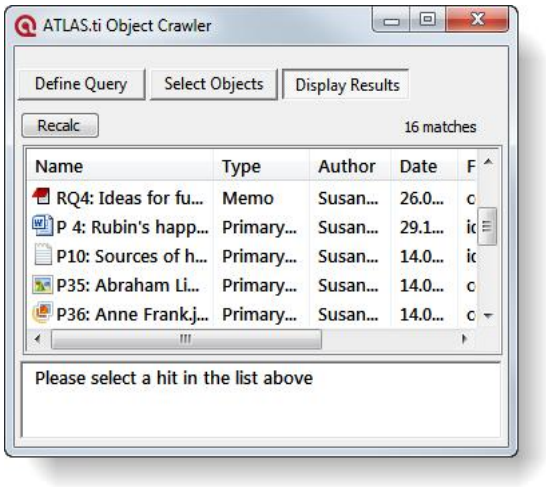


Figure 326: The Object Crawler's result pane

The results list can indeed be used like an Object Manager in a variety of ways:

Double-clicking a hit in the results list activates the object. For instance, double-clicking a quotation displays it in context in the PD pane.

The list is also drag & drop capable: you can drag objects from the list into a Network Editor or into a Text Editor.

The HU Explorer

Although the structures that can be created with ATLAS.ti are not necessarily restricted to hierarchical trees, the ATLAS.ti HU Explorer provides a hierarchical view of the HU and all of the objects that it references. All objects can be viewed in the Object Explorer. More specific views are provided by the Code Tree, The Code Forest and the Cooccurence Explorer.

Main purpose of the HU Explorer is to serve as a hierarchical content table, which may be used to navigate between the different parts of the HU. Unlike the "pure" Object Managers that display only one type of object, the HU Explorer allows an integrated and structured display of all heterogeneous objects that make up an HU. These are PDs, quotations, codes, memos, families, and networks. The display, though, is not strictly hierarchical. You will notice some redundancy when expanding the tree view. For instance, quotations are listed under each PD. As PDs can also be members of PD families, their quotations appear there as well.

The HU Explorer can be launched by clicking on the HU Explorer button in the main toolbar or by selecting **Tools / HU Explorer** from the main menu. You can select among four options:

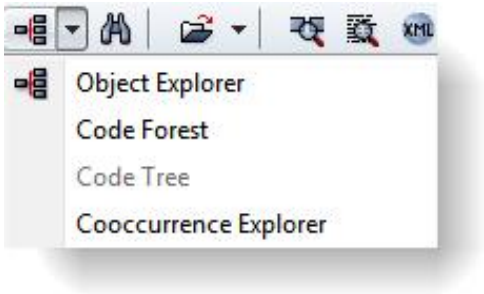


Figure 327: HU Explorer options

The **Code Forest** and **Code Tree** (see "Code Trees & Forests") are sub views of the Object Explorer and thus are not explained in the same detail. Both allow drag-and-drop coding. See "Using the HU Explorer for Coding."

As the code tree provides a hierarchical view of one code only, the Code Tree can only be opened if a code is selected.

You find more detail on the Coocurence Explorer in the section "The Code Co-occurrence Tree ."

The Object Explorer

The upper pane displays the tree-structured contents of the HU. The text pane below displays the comment that is associated with the activated object.

The root object of the tree is, of course, the HU itself. The direct branches from this root are: Primary Docs, Codes, Memos, Primary Doc Families, Code Families, Memo Families, and Network Views.

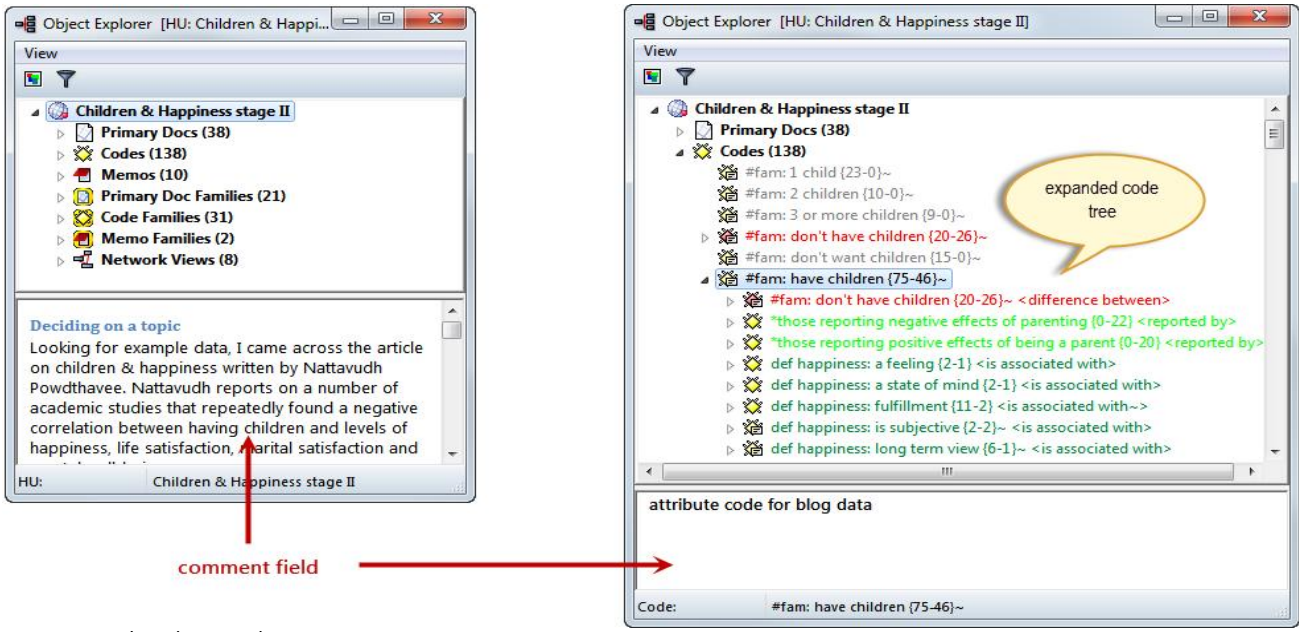


Figure 328: The Object Explorer

Expanding And Collapsing Branches

You can expand and collapse the branches of the HU Explorer tree. If a branch can be expanded, a plus sign is displayed to the left of the object, unless this is switched off via **Views / Has Buttons**. Expanded branches are indicated by a minus sign. You can expand or collapse a branch with a mouse click on the plus or minus sign. Below a partly expanded branch for a network view is shown.

Network Views (9)
Children & Happiness (18) ~
P 3: Belkin's parenting blog discussion {409}~
P 5: NY magazin blog: Discussion of "All Joy and No fun" article {163}~
P10: Sources of happiness: Summary of research findings {20}~
#fam: don't have children {20-27}~
#fam: have children {75-46}~
def happiness: a feeling {2-2}
def happiness: a state of mind {2-3}
def happiness: fulfillment {11-4}
def happiness: is subjective {2-4}~
def happiness: long term view {6-3}~
RQ1: Children and Happiness viewed by parents and non-parents {8-an} - ATLAS.ti team
source: relationships {9-2}
source: activities {7-1}
source: appreciating the moment {9-1}~
source: attitude {13-1}
source: children {8-1}
source: the way to get there {3-1}
source: through struggle {4-1}

Figure 329: Partly expanded branches for a network view

Expanding the **Primary Docs** branch displays the PDs; expanding this branch displays quotations, expanding those displays codes, memos, and other associated quotations.

Expanding the **Codes** branch displays all codes and their connections to other codes. Following the code names, the semantic relation connecting the code with its parent code is shown.

Each code appears at least once. This means that all codes are listed directly under the "Codes" branch, but may also appear further down in the hierarchy if they are connected to other codes. The order in the hierarchy is determined by the kind of relation you have used. If a directed, i. e. a transitive relation like the <is part of> relation was applied, codes are displayed hierarchically: the target code becomes the higher order code and the source code(s) the lower order code(s).

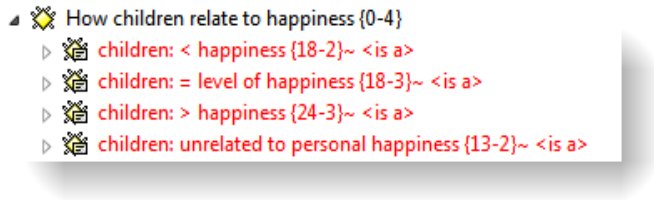


Figure 330: Display of codes that are linked via transitive relations

When using symmetric relations, the codes appear in at least two places since the direction/causal relation cannot be determined.

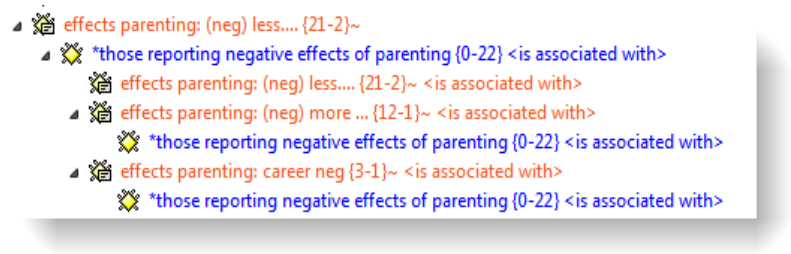


Figure 331: Display of codes that are linked via symmetric or asymmetric relations

Associated memos (if applicable) are displayed under the code branch.

Expanding **Super Codes** allows access to the various parts of a query. Below you can see the expanded branch for the Super Code "name of suspect: Cohen – Reasons for being suspected" (see figure 332). When double-clicking on the entry Co-occur, the two codes that are part of the query are displayed. Clicking the plus sign to expand the tree shows all associated codes: the six codes that were linked to the code *name of suspect: Cohen" and the eight member codes of the code family "Reason for being suspected".

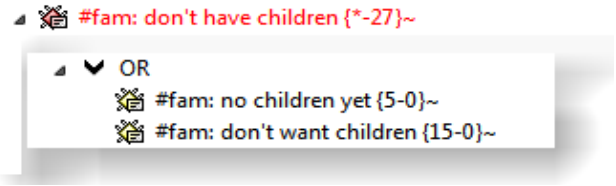


Figure 332: Display of super codes

Expanding the **Memos** branch displays all memos and then the memos associated with other memos. On the next level, all associated codes are shown.

When expanding the **Family** branches, on the first level all existing families are shown. On the next level, all members are displayed. Below the members, all objects that are usually associated with the type of object can be expanded (i. e., as described above: quotations underneath PDs, codes connected to other codes, and so on).

In case you have created **Super Families**, the operators used to build up the super families are also shown. When clicking on an operator, only the corresponding family members are shown, as explained above for Super Codes.

Expanding the **Network Views** branch shows the existing networks on the first level, and all objects contained in the Network Views on the next level. On the levels below, the usual elements as described above for the Primary Docs, Codes, and Memos branches can be made visible.

All codes displayed in the HU Explorer can be used for drag & drop coding. PDs, codes, and memos can be dragged into family managers and assigned to families.

Double-click Actions

Double-clicking the entries launches the respective Object Managers. These are the Object Managers for PDs, codes, and memos; the Family Managers for PDs, codes, and memo families; and the Network View Manager for Network Views.

- When double-clicking on a PD, its comment is displayed.
- When double-clicking on a quotation, it is highlighted in context.
- When double-clicking on a code, a list of quotations pops up. If only one quotation is associated with the code, it is highlighted in context.
- When double-clicking on a memo, its content is displayed.

Using The HU Explorer For Coding

Drag & drop coding works from within the Object, Code and Tree Explorer. In the Object Explorer, you can use the codes under the Codes tree or under the Code Families tree. This way you can utilize the structure you have created via code-code relations (see "Linking Nodes") or via code families (see "Code Families").

Renaming Objects

All objects, excluding the top-level entries like the name of the HU, the container entries "Primary Docs", "Codes", "Memos", etc., can be renamed using the "in-place" technique. This technique is also used by Windows Explorer and other Windows file dialog boxes to rename files and directories.

Context Menus Of Objects

Each object in the HU Explorer has a context menu. These menus can be accessed in the usual manner with a right mouse click. This selects the object, if not already selected, and opens the context menu, which offers a few selected object-specific operations.

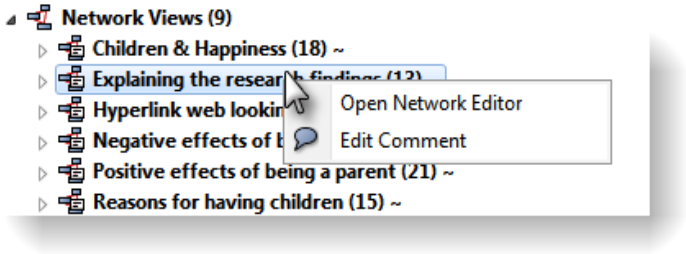

Network Views (9)
Children & Happiness (18) ~
Hyperlink web lookin
Negative effects of b
Positive effects of being a parent (21) ~
Reasons for having children (15) ~
Open Network Editor
Edit Comment

Figure 333: Context menu of network views in the HU Explorer

HU: Review a short information and statistics about your project. Edit the HU's comment or create / unpack a copy bundle file (see "How To Unpack A Copy Bundle").

PDs / Codes / Memos: Open the object manager or expand to the respective object level.

PDs / Codes / Memos: Open the object manager or expand to the respective object level.

PD, Code, Memo Families: Open the family manager to expand to the family or member level.

Network Views: Open the network view manager or expand to the network or node level.

Displaying And Editing Comments

To edit an object's comment,

- Select an object and edit the comment that appears in the text pane.
- Save changes by opening the context menu inside the text area and choose **Accept**.

The View Menu

The items offered by the View menu let you change the font (useful before capturing screen shots for presentations), the display of object-specific items, the length of the tree indentation, the presence of the collapse/expand buttons, the display of the object's icons, and the comment area (Zoom List). You can also disable the in-place editing capability.

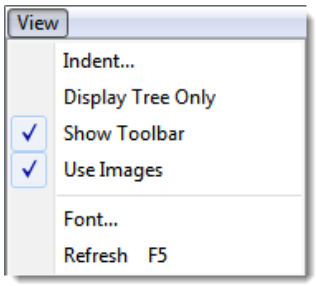


Figure 334: View menu

Code Trees & Forests

Special HU Explorers can be invoked to display codes only. You can open them via the HU Explorer button in the main menu, or via the following menus:

- Select a code, e. g., in the Code Manager.
- From the **Codes / Miscellaneous** menu, choose **Code Tree**.
- To display all root codes with their trees and branches,
- Select a code.
- Choose **Codes / Miscellaneous / Code Forest**.

The rules and procedures described above for codes in the Object Explorer apply here as well (see "The Object Explorer").

Codes displayed in code trees and forests can be used for drag & drop coding. This is a preferred alternative for users who like to work with hierarchically-ordered coding schemes.

Redundant Codings Analyzer

This procedure identifies overlapping or embedded quotations that are associated with the same code. Such "codings" -- possibly indicating redundancy -- can result from normal coding but may occur unnoticed during a merge procedure.

You might not need or want to correct redundant codings, but these occurrences may be indicative of methodological issues in your analysis.

The Redundant Coding Analyzer Screen

The Coding Analyzer finds codes with redundant codings and offers appropriate procedures.

To open the tool, select **Tools / Coding Analyzer** from the HU editor's main menu.

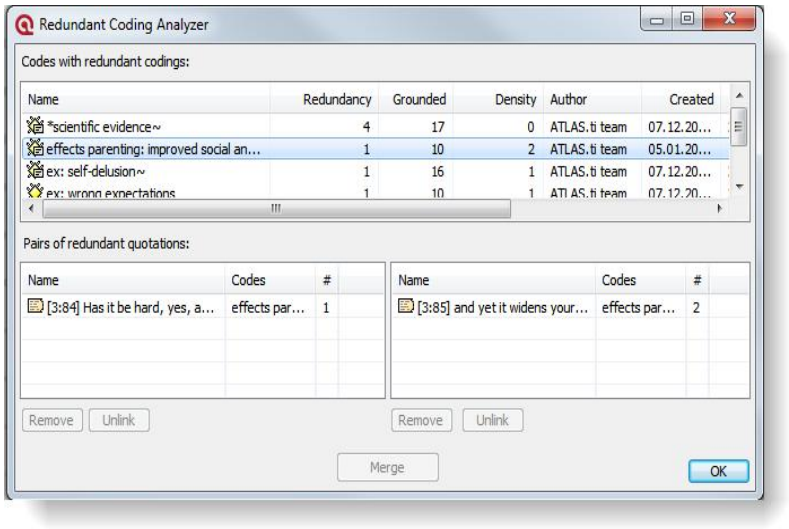


Figure 335: The Redundant Coding Analyzer

The upper pane displays a list of codes referencing overlapping quotations. Clicking on a code displays the conflicting quotations pair wise. Double-clicking on a listed quotation displays it in context.

The upper pane lists all codes for which redundant codings were found. The Redundancy column displays the number of pairs of redundant quotations found for the codes. If you select one of the codes, the redundant quotations are listed in pairs in the two lower panes. Double-clicking on the listed quotations displays and highlights them in context. Because of this, you can check them in context and decide how to proceed.

The figure below illustrates a typical redundant coding:

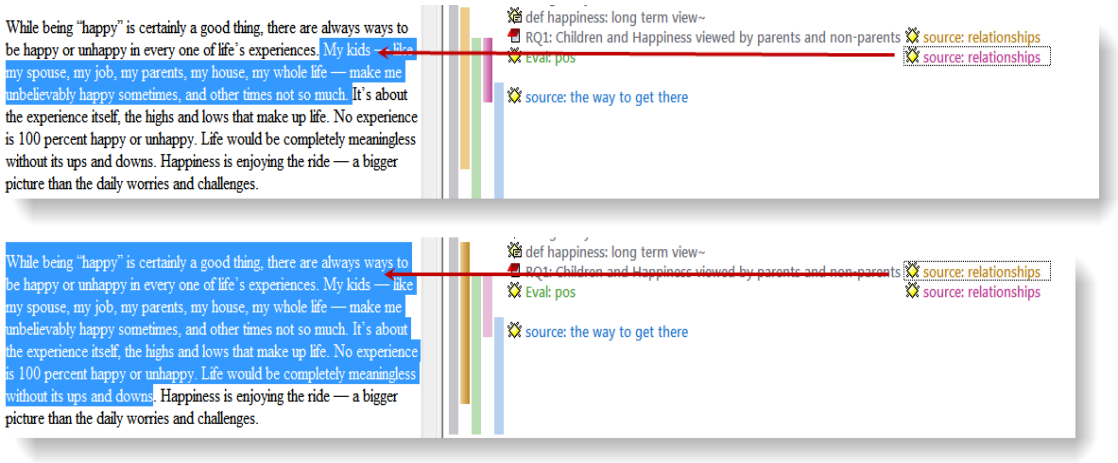

While being "happy" is certainly a good thing, there are always ways to be happy or unhappy in every one of life's experiences. My kids — like my spouse, my job, my parents, my house, my whole life — make me unbelievably happy sometimes, and other times not so much. It's about the experience itself, the highs and lows that make up life. No experience is 100 percent happy or unhappy. Life would be completely meaningless without its ups and downs. Happiness is enjoying the ride — a bigger picture than the daily worries and challenges.
def happiness: long term view~
RQ1: Children and Happiness viewed by parents and non-parents
Eval: pos
source: relationships
source: relationships
source: the way to get there
While being "happy" is certainly a good thing, there are always ways to be happy or unhappy in every one of life's experiences. My kids — like my spouse, my job, my parents, my house, my whole life — make me unbelievably happy sometimes, and other times not so much. It's about the experience itself, the highs and lows that make up life. No experience is 100 percent happy or unhappy. Life would be completely meaningless without its ups and downs. Happiness is enjoying the ride — a bigger picture than the daily worries and challenges.
def happiness: long term view~
Eval: pos
source: relationships
source: relationships
source: the way to get there

Figure 336: A typical redundant coding

Three procedures to handle a redundant coding are offered:

Unlink detaches the selected code from the quotation selected in one of the quotation panes. This method is the least "destructive" of the available options.

Remove deletes the selected quotation.

Merge melts the quotation in the right pane into the quotation selected in the left pane. All references to and from the merged quotation is "inherited" by the other. If the two quotations overlap, the resulting quotation includes all data from both quotations.

Both quotation panes have a "**Connectivity**" column that shows the number of connections (to codes, quotations, and memos) for the selected quotation. The connectivity counter provides an additional clue about the next step. A quotation with less connections might be less painful to remove.

If you see a quotation listed more than once in one of the quotation list panes, it means that three or more quotations are involved in a redundant coding. You will notice, that merging one pair of quotations may have the effect that other pairs are removed from the list as well, as the redundancy assertion does not hold any longer for the remaining pairs of quotations for this code.

Unlinking, Removing Or Merging A Redundantly Coded Quotation

- Select a code in the upper pane. All pairs of redundantly coded quotations are then displayed in the two lower panes.
- Double-click on the quotations of a pair to inspect them in context.
- Decide whether you want to unlink or remove one of the two quotations, or whether you want to merge them.
- To unlink a quotation click the **Unlink** button below the appropriate list pane. The effect and alternative procedures of unlinking codes is described in further detail in "Unlinking Codes."

- To remove a quotation click the **Remove** button below the appropriate list pane.
- To merge the pair of quotations, click the **Merge** button.
- Note that the quotations removed by this procedure cease to exist inside the Hermeneutic Unit.

Sorting And Filtering

The main strengths of a computer clearly lie in sorting and retrieving data. For such techniques to be deployed successfully, however, the data itself must have attributes by which it can be meaningfully ordered and filtered. A variety of attributes can be used for filtering and sorting data. Many entities within an HU can be filtered, for example, primary documents, codes, memos, and quotations.

Sorting and filtering primary documents, codes, memos, and quotations can help you gain deeper insight into your data.

Sorting and filtering can be accessed via the HU editor's menu or the Object Managers' menus. The columns in the Object Managers' report views may also be used for sorting. Some options for sorting and filtering are common to all objects, while others are dependent on the object's type.

Sorting

Sorting is available via the Object Managers' columns and the main menus of the HU Editor and the Managers.

Sorting In Object Managers

Click the header to sort the items. Click again to reverse the sort.

Sorting is conveniently available in all Object Managers via the list headers while in details view: clicking on a header "button" sorts the list in either ascending or descending order.

Figure 337: Sorting via the columns in object managers

The column used for sorting is displayed in a darker shade. The sort direction is visualized by an arrow in the header. In four field of the status bar, the sort criterion is displayed.

A double-click on the status bar's sort field refreshes the current sort. This is a useful option because newly added objects are appended to the end of the list regardless of their correct position in the sorted sequence.

Sorting Via The Menus

The Sort menu option is available in the object menus of the HU Editor (Documents, Quotations, Codes, and Memos) and from the corresponding Manager's menu.

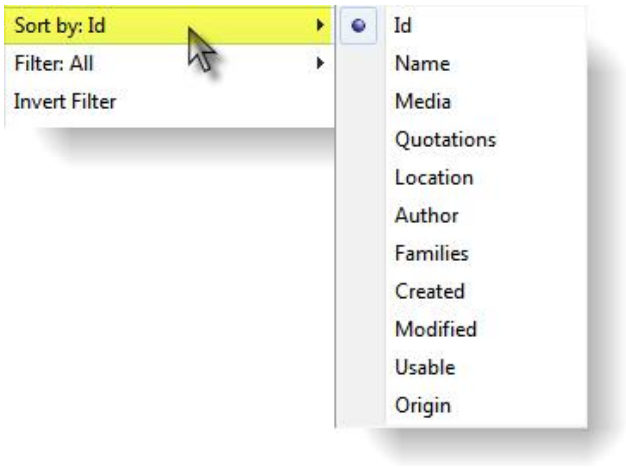


Figure 338: Sort menu for documents

The figure below shows the Sort menu for documents with the current sort criterion set to ID (which is also the default):

In Object Managers, the currently selected sort criterion is also displayed in the status bar. After new items are added to the list, refresh the sort with a double-click on the status pane's sort field.

Overview Of Sort Options

The following describes the sort options in more detail. Default sort order: D = descending, A = ascending.

Sort criterion	Entity type	Description	Sort order
Name	PDs, quotes, codes, memos	Entity name (string)	A
Author	PDs, quotes, codes, memos	Author's name (string)	A
Created	PDs, quotes, codes, memos	Creation date - or date of assignment for PDs. (date/time)	D
Modified	PDs, quotes, codes, memos	Modification date (date/time)	D
Density	quotes, codes, memos	Quotes, codes: number of links to objects of the same type Memos: number of links to all associated objects (i. e., quotes, codes, and other memos)	A
Grounded	codes, memos	Number of associated quotations.	A
ID	PDs, quotes	The system generated ID (number)	A
Size	quotes, memos	Quotations: number of lines/paragraphs	
Memos: size of text	A		
Media	PDs	Media type (i. e., audio, image, rich text, text, video)	A
Quotations	PDs	Number of quotations for the primary document.	D
Usable	PDs	Usability of the primary document	D
Origin	PDs	Origin of data source (alphabetically)	A
Location	PDs	Redirected path (if used)	A
Start	Quotes	The quotations' start position	A
Type	Memos	Memo type (string)	A
PDs	Memos	Number of PDs using the memo as their data source (if any).	A
Families	PDs, codes, memos	By families in alphabetic order	A

Filtering

The status bar of all Object Managers displays the current filter and sort setting. The default filter criterion is "All".

Figure 339: Indication of filter setting and sort order in the status bar of object managers

It is possible to combine filtering and sorting (e. g., all "free" codes sorted by the time of their creation).

The filter options are available in the object menus of the HU Editor (Documents, Quotations, Codes, and Memos) and from the corresponding Manager's menu. The filter field in the status bar offers a few additional options like reversing or removing the filter. When a filter is active, the background color of the affected lists and Object Managers changes.

The figure below shows the Filter menu for codes with the current filter set to All (which is also the default):

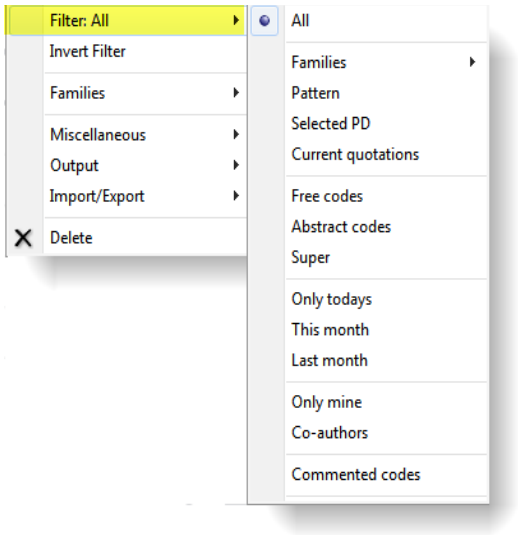


Figure 340: Available filters for codes

After setting a filter, the background color of the affected Object Manager and drop-down list changes. You can modify this color by changing the QuickInfo color via Windows display preferences. In the figure below, the filter is set to **abstract** codes and the QuickInfo color is set to a darker yellow (under Windows preferences). The default color is pale yellow and depending on your computer screen, it may be difficult to see.

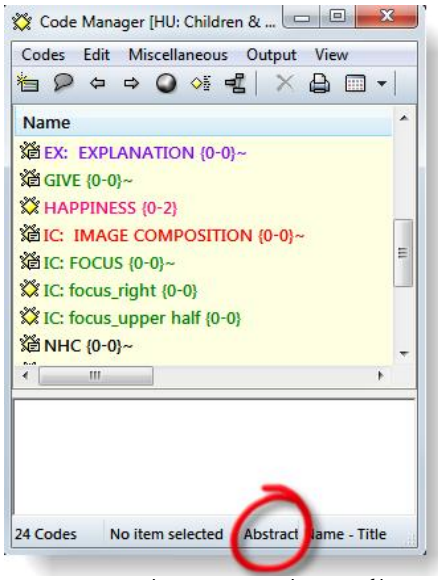


Figure 341: Code Manager with active filter

Filters affect a number of procedures

Most operations (e. g., display, printing, export) on sets of objects include only the currently filtered set. For this reason, if a filter was set for quotations, the output of "all" quotations would be restricted to the quotations currently present in the Quotation Manager. Network Views are not affected by filter settings and display all objects at all times. The margin area shows only the filtered objects.

An overview of all filter options for all object types is provided below.

Overview Of Filter Options

Option	Entity type	Description incrementally with immediate feedback after
All	PDs, quotes, codes, memos	All objects are displayed (filter off)
Pattern	PDs, quotes, codes, memos	Objects matching the entered search pattern
Only today's	PDs, quotes, codes, memos	Objects created today
Only mine	PDs, quotes, codes, memos	Objects created by the current user
Co-Authors	PDs, quotes, codes, memos	Objects created by any of the selected co-authors
Families	PDs, quotes, codes, memos	Objects belonging to a family
Free	PDs, quotes, codes, memos	Objects that do no reference any other objects

Commented	PDs, quotes, codes	Objects bearing a comment
Selected PD	quotes, codes, memos	Objects referring or belonging to the currently selected primary document
PD-Memo	PDs	Memo used as primary document data sources
Text	PDs	Textual primary documents (plain and Rich Text)
Rich Text (file)	PDs	RTF encoded primary documents
Graphic	PDs	Graphical primary documents
Audio	PDs	Audio primary documents
Video	PDs	Video primary documents
Uses Mapping	PDs	Redirected primary documents
Renamed	Quotes	Renamed quotations
Hyper-linked	Quotes	Quotations linked to other quotations
Selected code	PD, Quotes	Quotations coded with the currently selected code
Abstract codes	Codes	Codes without quotations. Less selective than "Free"
Current quotation	Codes	Filters the list of codes and displays only those linked to the selected quotation(s)
Super	Codes	Super codes
Types	Memos	Memos of a certain type

Pattern Searches As Filter

Enter a GREP pattern to filter all objects with names matching this pattern.

For example, if you have used names prefixed with "ATT:" for all codes handling "attitudes", the pattern "^ATT:" would filter all those codes (the caret character ^ anchors the search at the beginning of the name).

Enter "\[.*\]" to filter all items containing arbitrary text in brackets.

An overview of the available GREP expressions is listed in the section "GREP Search."

To Reverse A Filter

Choosing Toggle Filter from the menu or double-clicking the filter field reverses the filter. The tilde symbol ~ indicates a negated filter in the status bar.

By reversing the codes filter 'Abstract,' you can display all codes that are *not* 'Abstract'. These are all codes that do have quotations associated with them. In the filter field you see the entry '**~Abstract**'.

Figure 342: Negate a filter by double clicking on the status bar

Press CTRL and double-click the filter field to remove a filter.

To Remove Or Reset Filters

To deactivate a filter

- either select **Filter: All** from the menu, or
- double-click on the filter field while holding down the Ctrl-key, or
- select **Tools / Reset all Filters** from the main menu.

Filter By Families In The Family Managers

When double-clicking a family in any of the Family Managers, the corresponding objects are filtered to the members of the selected family. Double-click again to remove the filter.

Setting Local And Global Filters In The Managers' Side Panel

This option is described in the section "The Manager Side Panel ."

Generating Output

This chapter provides an overview of all output options that are available within ATLAS.ti. In addition, some general procedures common to most output functions are explained.

ATLAS.ti offers numerous options to create output and reports. Most output is textual, but numeric or graphical output is also available where applicable (Network Editor). Typical textual reports include sorted and filtered lists of objects, like code, memos, families and quotations. Comments can often be included when needed.

For textual primary documents a near what-you-see-is-what-you-get (WYSIWYG) output is available, including the annotations populating the margin area.

Output options are available from the menus of the tools, e. g., the HU Editor's menus, the Object Manager's and HU Explorer's menus. Some tools offer an output button, either as the only option (e. g., the Query Tool) or in addition to the menus (Code Manager).

The target of an output is not necessarily restricted to the printer. Many of the text-related report procedures allow output to be directed to a text editor, the printer, or a file.

Other kinds of output are not necessarily intended to be printed directly but are to be processed by other applications, like the SPSS export option, several Excel compatible outputs, and HTML and XML export. You can find those procedures in chapter "Export & Import."

Output Destinations

When creating textual output or when creating text-based exports, the following dialog is usually displayed in the course of the process:

You can send output to:

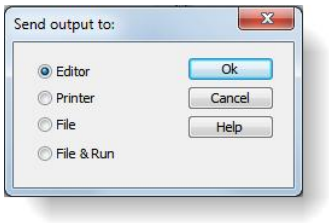


Figure 343: Common output options

Editor: The output will be displayed within a text editor. This option is useful if modifications are needed before actually sending it to the printer or if you are unsure about the size of the result.

Printer : If you select this option, the output will be printed (the printer dialog window opens where you may select the desired print options).

File: If you select this option, the output will be saved to a file (a save file dialog opens).

File & Run: If you select the last option the file dialog window opens. After it has been saved, the file will be opened by the application registered for its extension. (e. g., a CSV or xls file will be opened in Excel™).

Report Layout

Common Header

When creating textual reports, a common header precedes the list of objects (e. g., all codes or all quotations for a selected code).

The header includes information about the kind of report ("All current quotations"), the HU (name and file path), the current user, the date and time of the creation of the report and the current filter if any.

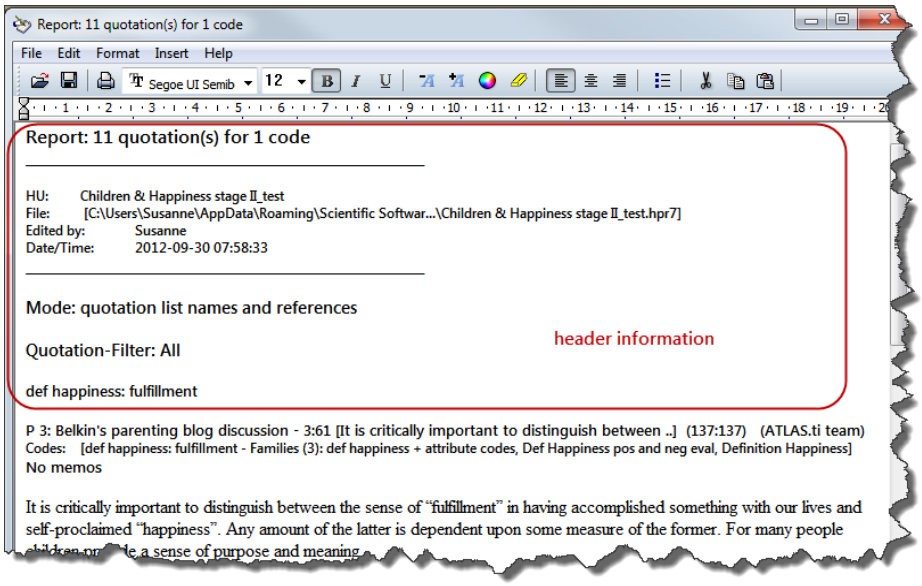

Report: 11 quotation(s) for 1 code
File Edit Format Insert Help
Segoe UI Semib 12
Report: 11 quotation(s) for 1 code
HU: Children & Happiness stage II_test
File: [C:\Users\Susanne\AppData\Roaming\Scientific Softwar...\Children & Happiness stage II_test.hpr7]
Edited by: Susanne
Date/Time: 2012-09-30 07:58:33
Mode: quotation list names and references
Quotation-Filter: All
def happiness: fulfillment
header information
P 3: Belkin's parenting blog discussion - 3:61 [It is critically important to distinguish between ..] (137:137) (ATLAS.ti team)
Codes: [def happiness: fulfillment - Families (3): def happiness + attribute codes, Def Happiness pos and neg eval, Definition Happiness]
No memos
It is critically important to distinguish between the sense of "fulfillment" in having accomplished something with our lives and self-proclaimed "happiness". Any amount of the latter is dependent upon some measure of the former. For many people

Figure 344: Report header information

Sorts & Filters

Many list reports are affected by the currently active filter for the reported objects. For instance, if the primary document's filter is set to a specific family, creating a report of "All" quotations yields only those quotations for primary documents within that specific family.

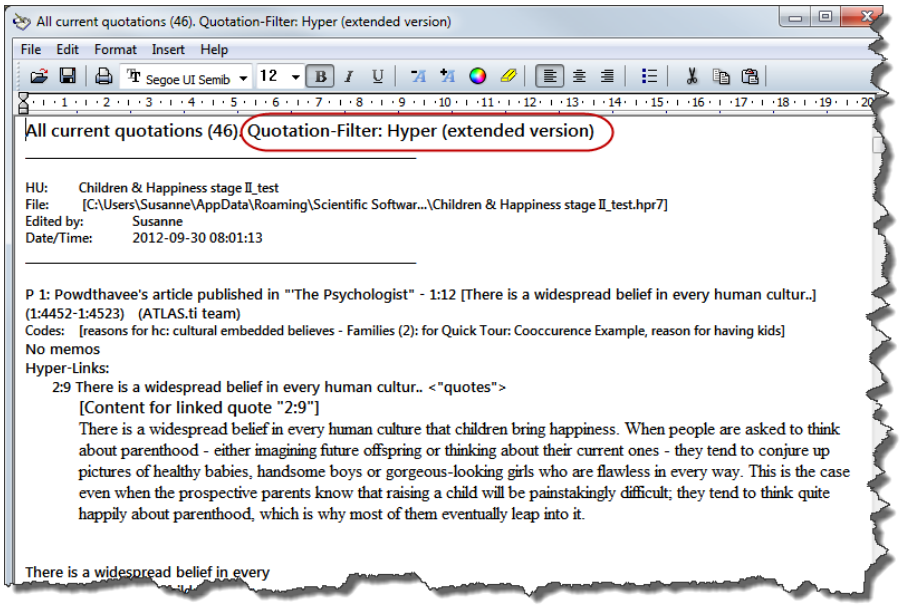

All current quotations (46). Quotation-Filter: Hyper (extended version)
File Edit Format Insert Help
Segoe UI Semib 12
All current quotations (46) Quotation-Filter: Hyper (extended version)
HU: Children & Happiness stage II_test
File: [C:\Users\Susanne\AppData\Roaming\Scientific Softwar...\Children & Happiness stage II_test.hpr7]
Edited by: Susanne
Date/Time: 2012-09-30 08:01:13
P 1: Powdthavee's article published in "The Psychologist" - 1:12 [There is a widespread belief in every human cultur..] (1:4452-1:4523) (ATLAS.ti team)
Codes: [reasons for hc: cultural embedded believes - Families (2): for Quick Tour: Cooccurence Example, reason for having kids]
No memos
Hyper-Links:
2:9 There is a widespread belief in every human cultur.. <"quotes">
[Content for linked quote "2:9"]
There is a widespread belief in every human culture that children bring happiness. When people are asked to think about parenthood - either imagining future offspring or thinking about their current ones - they tend to conjure up pictures of healthy babies, handsome boys or gorgeous-looking girls who are flawless in every way. This is the case even when the prospective parents know that raising a child will be painstakingly difficult; they tend to think quite happily about parenthood, which is why most of them eventually leap into it.
There is a widespread belief in every

Figure 345: Output of hyper-linked quotations

The figure above shows the report generated after setting the the quotation filter to "Hyper-linked." The quotation filter is displayed in the header.

Restricting Output To Selected Objects

Output options for selected objects available from the HU Editor's menus are restricted to a single object. For example, you can print one code at a time. Output options within the Object Manager allow you to select multiple objects and output each of them at the same time. For example, you can highlight three codes within the Code Manager and create a report that contains quotations coded to each of the three codes. Another option to restrict output is to work with filters. See "Sorting and Filtering."

Creating Output For The Main Objects

Under the main menu for each of the four main object types (primary documents, quotations, codes and memos) you can find an output submenu. The corresponding object managers contain equivalent output menus. However, output options within object managers allow for the selection of specific items (e. g., a subset of codes rather than all codes) to be included in the output.

The output options for the four main object types are explained in detail below.

The (Primary) Documents Output Sub Menu

The output sub menu for primary documents

List

Generates a list of all primary documents in the HU. If any of the PDs have a comment you are asked if these are to be printed as well.

Hierarchy

Prints the selected PD's quotation numbers and their codes and memos in a hierarchical manner.

Quotations

Prints all quotations belonging to the selected primary document.

Print With Margin

The Print with Margin option creates a WYSIWYG printout of coded texts (What You See Is What You Get). It also prints texts with their paragraph numbers. If you direct it to a PDF printer, a PDF document is created.

Print with Margin is currently only available for textual primary documents.

The appearance of the printed text can be controlled in three places:

- Via the PD Printing tab in the General Preferences dialog (see below "Setting PD Printing Preferences").
- By the current display **settings** in the **HU Editor**. The printout resembles the screen display at the time of creating the output. The margin or the numbering is only included if currently displayed. Only those margin objects are included that were selected to be displayed in the margin. By moving the splitter bar the ratio between document and margin area can be controlled. To change the type of objects that are displayed and they appearance, e. g. font size, right click on a white space in the margin area to open the context menu.
- The **printing dialog** under **File / Printer Setup**. Switching to landscape for densely populated margins may improve results. Choose to print the one or more primary documents or a selected text passage only.

SETTING PD PRINTING PREFERENCES

Depending on the size and layout of your document, the number of objects in the margin and the fonts used in the document, adjustments may become necessary. To set PD Printing preferences, select the main menu option **Tools / General Preferences**.

TO PRINT A PRIMARY DOCUMENT WITH MARGIN

Load the primary document.

If you do not want to print the entire PD, highlight the section that you want to print. If you want to print several PDs, select those you want to print in the PD Manager.

Switch the wrap mode to Printer via **Edit / Word Wrap / For Printer**. Although printer wrap is enabled anyway when starting the print, it is advisable to select this wrapping mode in the first place to better judge the expected layout and avoid surprises.

The printed page is divided into "columns" for the numbering, the actual text and the margin area. Specify the ratio between the space reserved for the text and the margin by moving the splitter bar to an appropriate position. It might take some experimentation to arrive at optimal results for your printer.

Select **Documents / Output / Print with Margin** from the main menu. If you print several PDs, select out **Output / Print with Margin option** from the PD Manager's output menu.

Print selected parts of a document.

The printer dialog opens. If you have made a selection (e. g., manually or by activating a quotation) and want to restrict the output to this part of the document, check option "Print Selection" before clicking the **Print** button. If you want to create a PDF document, select a PDF writer as printer.

Our WYSIWYG of annotated documents has its limits. For instance, if you have coded the document quite densely, with lots of overlapping quotations and

many memos and hyper-links, color is recommended for best visual discrimination.

The Quotations Output Sub Menu

Selected Quotation

Prints the selected quotation. In the Quotation Manager, all selected quotations are printed.

All Quotations

Prints all current quotations. If any of the quotations have a comment you are asked if these are to be included in the printout.

All Quotations (List)

Prints all current quotations in a compact format including only the quotations ID and display name. This is a suitable option for audio, video, image and GoogleEarth documents, when you have renamed the quotations to serve as title.

By default, the quotation name has only 30 characters. You can increase it in the General Preferences Window in the field: **List name size for quotes.** If you do this after the quotations have already been created, you need to update all names via the option **Quotations / Miscellaneous / Update Names**.

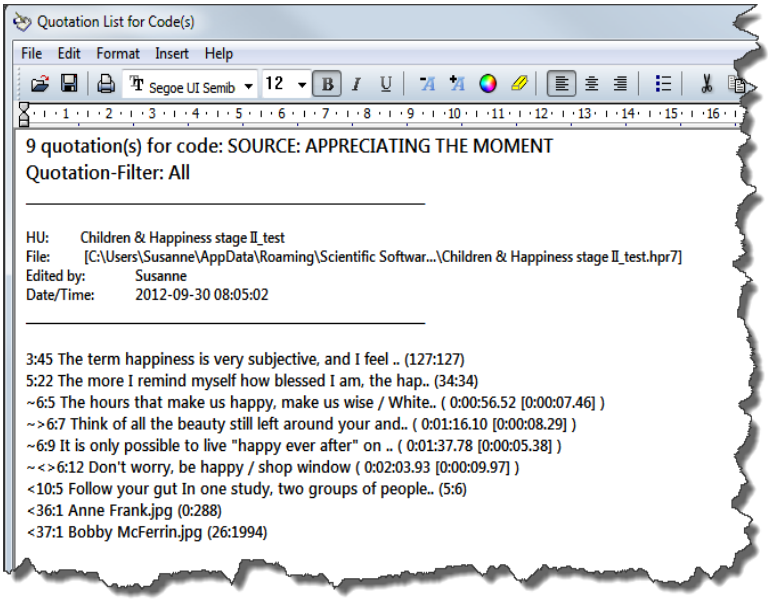

Quotation List for Code(s)
File Edit Format Insert Help
Segoe UI Semib
12
9 quotation(s) for code: SOURCE: APPRECIATING THE MOMENT
Quotation-Filter: All
HU: Children & Happiness stage II_test
File: [C:\Users\Susanne\AppData\Roaming\Scientific Softwar...\Children & Happiness stage II_test.hpr7]
Edited by: Susanne
Date/Time: 2012-09-30 08:05:02
3:45 The term happiness is very subjective, and I feel .. (127:127)
5:22 The more I remind myself how blessed I am, the hap.. (34:34)
~6:5 The hours that make us happy, make us wise / White.. (0:00:56.52 [0:00:07.46])
~>6:7 Think of all the beauty still left around your and.. (0:01:16.10 [0:00:08.29])
~6:9 It is only possible to live "happy ever after" on .. (0:01:37.78 [0:00:05.38])
~<>6:12 Don't worry, be happy / shop window (0:02:03.93 [0:00:09.97])
<10:5 Follow your gut In one study, two groups of people.. (5:6)
<36:1 Anne Frank.jpg (0:288)
<37:1 Bobby McFerrin.jpg (26:1994)

Figure 346: Quotation list output

Speak Quotation

Lean back, close your eyes, and let ATLAS.ti read the quotation to you. (Currently this works only for English language text.)

The Codes Output Sub Menu

Quotations For Selected Code

Prints all quotations for the selected code(s). When quotations are exported, headers for individual quotations include references to other codes (and memos) that are linked to those quotations. This is also true for other output options including quotations.

Quotation List

Prints a compact list of all quotations for the selected code (appearance as in 'All Quotation (list)').

Include Sub Terms

Prints all quotations for the selected code, including all quotations connected to any of the codes that are transitively linked to this code. This resembles a Query Tool created term using the SUB operator (see sections "Semantic Operators" and "To create code-code and quotation-quotation links using the Object Manager").

Query Tool

Opens the Query Tool (see"Query Tool" for details).

Code List

Prints a list of codes according to the current sort setting.

Code Hierarchy

Prints the hierarchy of codes as indented text. The hierarchy is not created automatically by ATLAS.ti. It is based on the type of links between codes as defined by the analyst (see "To create code-code and quotation-quotation links using the Object Manager").

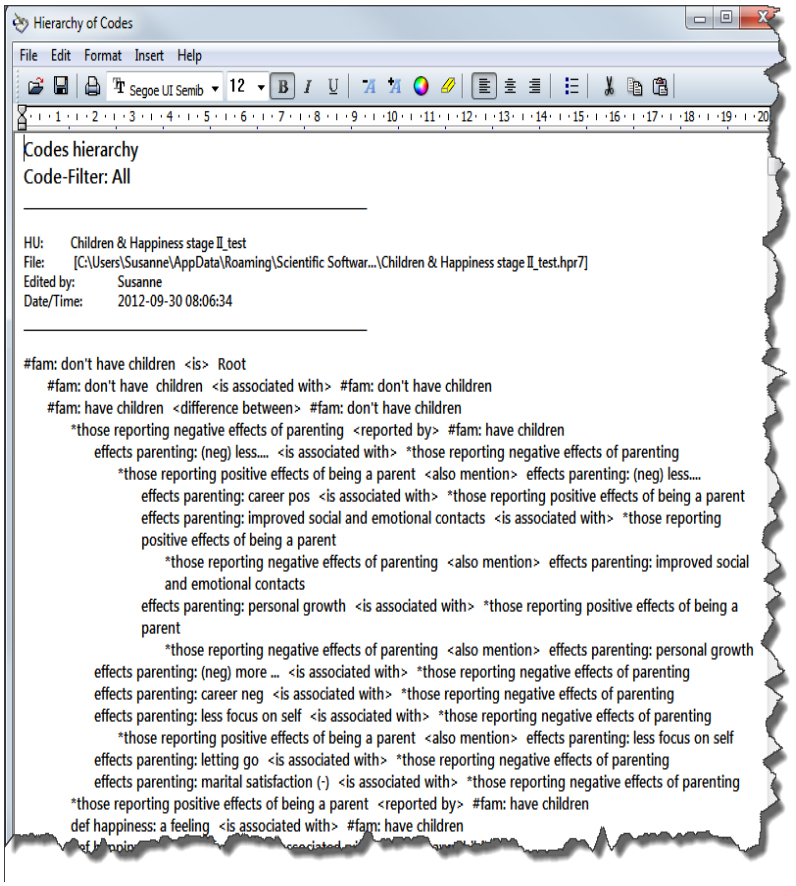


Figure 347: Code hierarchy based on the links created between codes

Codes Neighbors

Similar to codes hierarchy but restricted to one hierarchy level. Prints all current codes with only their immediate code neighbors.

Codes-Primary-Documents-Table Sub Menu

Prints frequency counts (number of quotations or sum of all words of the quotations) in form of a table: all current codes (x-axis) by primary documents (y-axis). You may also export the table to Excel for further processing or more flexible reporting. This option is explained in detail in section "Codes-Primary Documents Cross-Tabulation."

Quotation References

Prints a list of codes including the boundaries of their quotations. Code comments can be included.

All Codes With Quotations

Prints all codes with a full report of their quotations. A table based output can be created using an XML style sheet (see below).

Codes With Comments (Code Book)

Generates an output of all codes with comments including creation and modification date, membership in families and number of quotations referenced by each code. An alternative option is to use the XML Explorer to create a code book, see "Working with Style Sheets."

Co-occuring Codes

Outputs the results of the Co-occurence Explorer in rtf format (see "RTF (qualitative)"). You can choose to include the quotation list or to output only the list of co-occurring codes.

The Output Dialog (in The Code Manager)

When clicking the Code Manager output button (see left), a dialog opens to allow you to select the characteristics of your output.

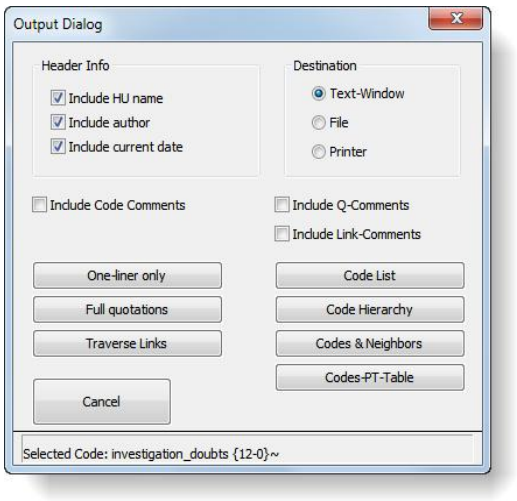


Figure 348: Code Output Dialog Window

Additional choices not available as menu options are the exclusion or inclusion of header information and link comments.

ONE-LINER ONLY corresponds to menu option 'Quotation List'.

TRAVERSE LINKS is the same as menu option 'Include Subterms'.

Reports For Code Combinations Via The Query Tool

When clicking on the printer button in the query tool, you can print the list of quotations resulting from your selected combinations of codes and code families, either in full length or in list format. Before creating the output, selected quotations can be excluded (see "Output").

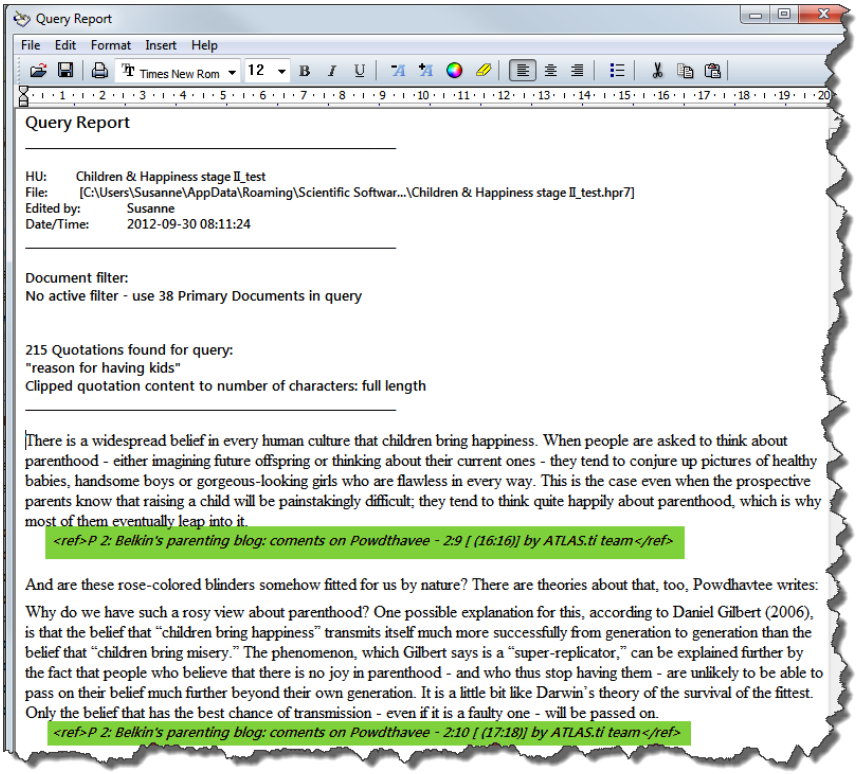

Query Report
File Edit Format Insert Help
Times New Rom 12
Query Report
HU: Children & Happiness stage II_test
File: [C:\Users\Susanne\AppData\Roaming\Scientific Softwar...\Children & Happiness stage II_test.hpr7]
Edited by: Susanne
Date/Time: 2012-09-30 08:11:24
Document filter:
No active filter - use 38 Primary Documents in query
215 Quotations found for query:
"reason for having kids"
Clipped quotation content to number of characters: full length
There is a widespread belief in every human culture that children bring happiness. When people are asked to think about parenthood - either imagining future offspring or thinking about their current ones - they tend to conjure up pictures of healthy babies, handsome boys or gorgeous-looking girls who are flawless in every way. This is the case even when the prospective parents know that raising a child will be painstakingly difficult; they tend to think quite happily about parenthood, which is why most of them eventually leap into it.
<ref>P 2: Belkin's parenting blog: coments on Powdthavee - 2:9 [(16:16)] by ATLAS.ti team</ref>
And are these rose-colored blinders somehow fitted for us by nature? There are theories about that, too, Powdhavtee writes:
Why do we have such a rosy view about parenthood? One possible explanation for this, according to Daniel Gilbert (2006), is that the belief that "children bring happiness" transmits itself much more successfully from generation to generation than the belief that "children bring misery." The phenomenon, which Gilbert says is a "super-replicator," can be explained further by the fact that people who believe that there is no joy in parenthood - and who thus stop having them - are unlikely to be able to pass on their belief much further beyond their own generation. It is a little bit like Darwin's theory of the survival of the fittest. Only the belief that has the best chance of transmission - even if it is a faulty one - will be passed on.
<ref>P 2: Belkin's parenting blog: coments on Powdthavee - 2:10 [(17:18)] by ATLAS.ti team</ref>

Figure 349: Quotation output excluding meta information

A space and paper saving output is the "no meta" option:

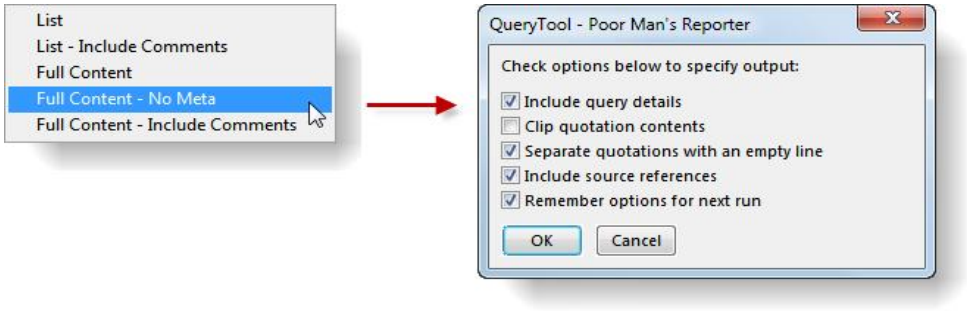


Figure 350: Output using No Meta: Save space and paper

A source reference is provided, if you select this option, but it only uses one line. It is displayed at the end of every quotation:

The Memos Output Sub Menu

List Of Memos

Prints a list of the current memos. You are given the option of output with or without the memo text.

Selected Memo(s)

Prints the selected memo(s).

Selected Memo With Quotations

Prints a selected memo including all referenced quotation(s).

Speak Memo

Lean back, close your eyes and let ATLAS.ti read the selected memo for your. Currently this works only for English language text.

Family Output

When clicking the output button in any of the three family managers, a report is created with information associated with the selected family: name, comment, list of members.

When desired, a report of all quotations that are associated with any of the members of the family is included.

Output For Co-occurence Tools

See quantitative results of the Co-occurrence Table Explorer, i. e. frequency of co-occurence of the c-coeffient, can be exported as Excel compatible file. To do this, you find an Excel export button in the tool bar of the Co-occurrence Table Explorer (see "Excel (quantitative)").

The qualitative results, i. e. the quotation IDs and names of the co-occurring codes can be exported as an rtf file. You find this option under **Codes / Output / Co-occuring Codes.**

Output For Network Views

Network Views can be saved as either Windows Bitmap (bmp) or enhanced meta (emf) file. In a network view editor select the option **Network / Save as Graphic File.**

A second option is to copy the entire or only parts of the network to the clipboard and then paste it into another application. When pasting, you need to select the "paste special" option in order to paste the network view as image. If you select just the "paste" option, the network view is pasted in text form. This is the equivalent to the code hierarchy output (see "Code Hierarchy").

Creating Reports With The XML Converter

XML, the eXtensible Markup Language is a powerful standard for information exchange between applications and has been used by ATLAS.ti since release 4.2. XML is increasingly used in any information technology related domains: the mobile phone web "language" WAP, transcripts created by open source transcription tool Transcriber, and Microsoft Office all use or are based on XML.

In case you don't know what XML is, the short explanation is that XML, similar to HTML, is a document markup language.

XML concentrates on structuring information. Structured information contains both content (actual words, pictures, etc.) plus typically some indication of what role that content plays (for example, text content inside a "heading" has a different meaning from content in a "footnote", content in a "figure caption" differs from content in a "database table", etc.).

Almost all documents have some structure, and a markup language is a mechanism to identify this structure in a document. The XML specification defines a standard way to add markup to documents.

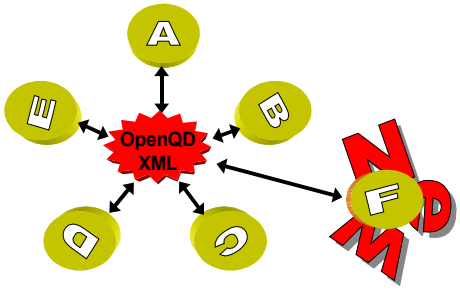


Figure 351: XML is a universal data interchange format, allowing programs to exchange data

If you create an XML output file, it can be read by other applications that support XML. One main advantage is that the application can define autonomously and completely detached from any display information contained in the document what parts of the structure are to be displayed and what the display should look like. This is commonly achieved with the help of so-called style sheets.

Style sheets are a way of prescribing how the content of your XML source file should be rendered. This can range from very simple layout commands ("show all elements of type X in red") to quite complex programming logic ("create an entire website in which each element of type X displays its sub-content on a single page, along with navigation, layout, interactive elements").

ATLAS.ti already comes with a number of such style sheets for you to use, but also to explore and potentially to expand on by copying and extending their functionality for your specific purposes. Once you understand the principle, you will see what an enormously powerful and flexible tool has been put at your disposal with these little programs. All style sheets are written in XSLT, a special language designed for transforming XML content and maintained by the World Wide Web Consortium ("W3C").

See also: http://www.atlasti.com/xml.html

XML Vs. HTML: A Little Tech Talk

XML is short for *eXtensible Markup Language*. This is already quite a useful description when you compare it to its "competitor" or predecessor, HTML, short for *HyperText Markup Language*.

The crucial term is "ex*tensible*", NOT "ex*tended*". HTML was intended to allow documents and information of considerable complexity to be exchanged across different technologies, operating systems, browsers, etc. It was also meant as a language which describes the logical structure of documents.

If you look at HTML code (right-click and select "View Source" when browsing any web page), you will have a hard time identifying content in the chaotic "noise" produced by tags representing tables, frames, buttons, rulers, fonts, images, indentation, etc.

Both HTML and XML are descendants of a much more powerful (and less comprehensible) language, SGML, the Standard Generalized Markup Language. What XML shares with the latter is that you can define your own new languages, something HTML does not allow for. While HTML is a prescribed language itself, XML is a meta-language for defining new languages.

HTML has no clear separation of content and presentation. With a fixed set of tags there is no way to clearly mark-up document content in a meaningful manner.

If you have ever seen the source code of a HTML coded web page, you can easily recognize two of the main characteristics of XML which makes them distinct from HTML:

- The presence of tags (e. g., <MEMO>, <SPEECH TURN>) which are not available in the fixed set of HTML tags (where new tags would be either proprietary or at least deviations from the standards). The tags used in an XML file represent YOUR data without invalidating any standards! Below, a raw XML file is shown.
- The absence of presentation (display, layout) related information (tables, fonts, images, rulers, etc)

Below you can see an XML version of an interview section with some added information:

```
<Trans version="1" trans_method="LING22" version_date="990120"
audio_filename="au.wav" xml:lang="DE">
 <Speakers>
  <Speaker id="I" name="Interviewer"/>
  <Speaker id="B" name="Herr Schultz" dialect="bavarian"/>
 </Speakers>
 <Turn speaker="I" tape_pos="2010">
   Ja.
 </Turn>
 <Turn speaker="B" tape_pos="2314">
   Wars doch eigentlich, ja da wars doch
   glaub ich erst ein oder zwei Tage, oder
   vielleicht einen Tag.
 </Turn>
```

```
</Trans>
```

If you interested to learn more about XML, there are countless sources online.

Style Sheets

The real power of the XML standard is unleashed by applying so-called "style sheets." In fact, an entire style language, the eXtensible Style Language (XSL, or, more specifically, XSLT) can be leveraged to create useful little programs and even full-blown applications on the basis of raw XML-structured data.

You do not need to know or have to learn the XSLT language to use the XML Converter with the provided style sheets. However, such knowledge is useful if you wish to create your own reports, browsers, and converters.

A Hermeneutic Unit exported to XML can be converted into a wide variety of other representations by using style sheets. Individual reports, conversions into other programs' input formats or creating 'clickable' viewer versions of your HUs are among the options available.

The default XML folder (browse conveniently via **Tools / Explorer / XML Folder**) hosts some examples of such style sheets waiting to be explored, or modified to suit your own needs or tastes. The XML converter can be viewed as a kind of plug-in interface for user written "programs" or macros.

The ATLAS.ti XML Converter is a convenient tool for user-created reports, converters and viewers. It displays all XML and XSL files located in the default XML folder.

If you change the default XML folder under **Tools / Preferences / General Preferences / Paths** and want to continue to use the provided style sheet samples, you need to copy the content of the default XML folder to the new location.

Requirements

ATLAS.ti's XML Converter requires Microsoft's MSXML v.3 XML parser to be installed. In turn, MSXML requires the Internet Explorer 6 or later to be installed.

Although Microsoft's Internet Explorer 6 (or higher) must be installed on your system, it is not required to be your default web browser!

If you have Windows XP as your operating system, you should already be well equipped. However, it is recommended that you download the most recent

version of the parser from the Microsoft web site (run the Check MSXML option below).

To check for the version of MSXML installed on your computer, run **Tools / XML / XML Converter** from the main menu, or click the globe button in the main toolbar.

Checking MSXML Compatibility

If you receive an error message, you need to check if you have a compliant version of MSXML installed:

From the main menu, select **Help / More Resources / Check MSXML**.

A list of installed MSXML modules will be displayed including their compatibility with ATLAS.ti. If none of the modules is compatible, follow the link to the offered download site to get a compliant version of MSXML.

Working With Style Sheets

ATLAS.ti offers a number of reports via flexible XML/XSLT style sheets. If you are skilled in XSLT, you can create any output you like based on the raw XML file of your ATLAS.ti project.

To create a raw XML file, click on the XML button in the tool bar and then select the option **Export HU to XML**.

For all others, we have put together a selection of useful reports. Click on the XML button, or select **Project / Export / XML Explorer**.

The Explorer divides the available style sheets into three groups: Reports, Viewers, and Programming/Demos:

- **Reports** offer a number of predefined reports sorted by Codes, Families, Memos, Network Views, Primary Documents and Quotations.
- **Viewers** include style sheets that offer various display forms for the HU.
- **Programming /Demos** provide style sheets that may inspire and help you to write additional style sheets on your own to create just the report you want.

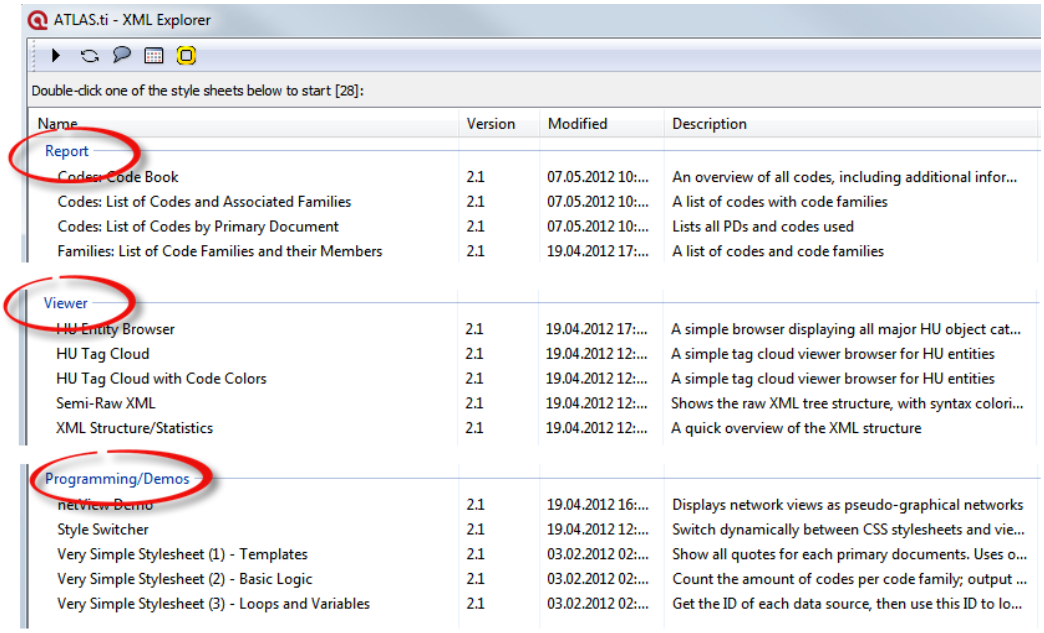


Figure 352: XML Explorer

The following predefined reports are available:

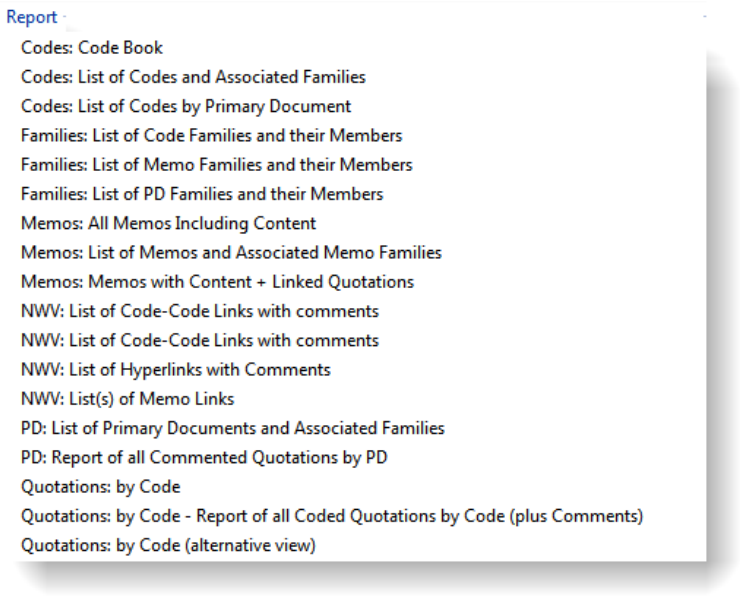

Report
Codes: Code Book
Codes: List of Codes and Associated Families
Codes: List of Codes by Primary Document
Families: List of Code Families and their Members
Families: List of Memo Families and their Members
Families: List of PD Families and their Members
Memos: All Memos Including Content
Memos: List of Memos and Associated Memo Families
Memos: Memos with Content + Linked Quotations
NWV: List of Code-Code Links with comments
NWV: List of Code-Code Links with comments
NWV: List of Hyperlinks with Comments
NWV: List(s) of Memo Links
PD: List of Primary Documents and Associated Families
PD: Report of all Commented Quotations by PD
Quotations: by Code
Quotations: by Code - Report of all Coded Quotations by Code (plus Comments)
Quotations: by Code (alternative view)

Figure 353: Available Reports

If you click on a report, a short description is provided in the comment field at the bottom of the XML Explorer window.

How To Create A Report

Select one of the reports and double-click.

A window opens offering the following three export options:

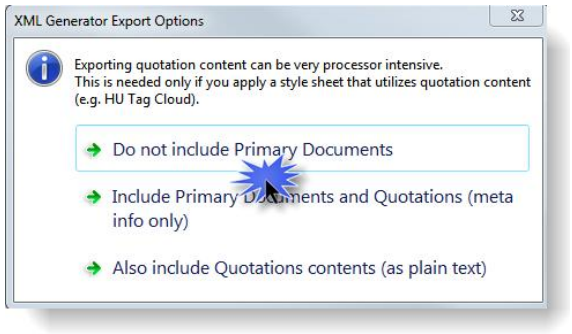

XML Generator Export Options
Exporting quotation content can be very processor intensive.
This is needed only if you apply a style sheet that utilizes quotation content (e.g. HU Tag Cloud).
Do not include Primary Documents
Include Primary Documents and Quotations (meta info only)
Also include Quotations contents (as plain text)

Figure 354: XML export options

Select the amount of content you need for the report.

The last option (also include quotations contents (as plain text)) exports the full content of the HU. This is however not always needed. For exporting a code book, for instance, you only need to export the code names and comments. Therefore, selecting the first export option:**Do not include Primary Documents** is sufficient.

If you are unsure how much information you need, you are on the save side selecting the third export option (Also include quotations contents). It may just take a bit longer (than necessary) to create the report.

The output is displayed in your web browser (Internet Explorer by default; results may vary in different browsers).

To create a Code Book:

Double click on the report: Codes: Code Book.

Select the first export option: **Do not include Primary Documents.**

Then wait for your browser to open (see Figure 355).

Coding: Code Book

Number of Codes: 141, commented: 96

Code Info		Comment	Author
EX: EXPLANATION	■	explanations why numerous studies have found a negative correlation between having children and happiness / life satisfaction / well-being	Susanne
ex: attitude	■	[no entry]	Susanne
ex: narcistic culture	■	[no entry]	Susanne
ex: salient experiences	■	this code needs to be considered in relation to the issue whether it is really happiness that is important to look at - thus asking the right question	Susanne
ex: self-delusion	■	explaining the findings with the self-delusion argument	Susanne
ex: work-life balance	■	explaining the findings with an imbalance between work and life due to children	Susanne
ex: wrong expectations	■	[no entry]	Susanne
GIVE	■	What children give	Susanne
give: joy	■	children give joy	Susanne
give: purpose and meaning	■	children give purpose and meaning to life	Susanne
give: special moments	■	The special moments that you have with kids make it worthwhile the effort	Susanne
HAPPINESS	■	[no entry]	Susanne
Happiness - Joy	■	this code is used when the difference between happiness and joy is debated.	Susanne
Happiness: effect of wanting children	■	or different outcomes than happiness - the point here is whether there are differences when there is a strong desire to have kids	Susanne
Happiness: is not the key	■	statements where people express that happiness is not the key question when it come to decide whether to have a child or not	Susanne

Figure 355: Code book report

You can copy and paste this table from Internet Explorer into a MS Word document or other applications and, if desired, add some further formatting.

To output all coded segments by codes plus comments:

If you want to output all quotations sorted by codes, select **Quotations: by Code – Report of all Coded Quotations by Code (plus Comments)**

You need to be aware that this potentially may result in large outputs, as you cannot apply filters. Nonetheless, this output is frequently used and asked for, e. g. as a means to add transparency to the analysis process and to make outcomes available to third parties.

Select the third export option: **Also include Quotations contents (in plain text)**.

The result is a list of tables, one for each code, displaying the code name and its definition/comment in the first row and all quotations underneath.

You can only output textual information. For image, geodata, or multimedia quotations only a reference is provided.

atlas.ti report

Quotations: by Code - Report of all Coded Quotations by Code (plus Comments)

HU: Children & Happiness stage II

Code: #fam: 1 child

attribute code for blog data

Quotation Nr: 38 Source: **Belkin's parenting blog discussion** Has Comment: no	Though I adore my son, since his arrival, my marital satisfaction has declined dramatically. And the career has been rough too. I think the problem, though, is not put properly in these studies. Rather than asking if having children raises happiness, we should be looking at the work-family tensions that make having children more likely to reduce happiness. If employers were far more accommodating, it would be an entirely different ballgame.
Quotation Nr: 70 Source: **Belkin's parenting blog discussion** Has Comment: no	Just as children cannot bring happiness as Couvade points out, I'm not sure they can solely bring unhappiness as well. I'm an older, first time mother to a five month old in a stable relationship with no financial worries and feel that I can take the difficulties that arise from parenting in stride without there being a significant impact on my happiness or unhappiness. Perhaps this is because I have been looking forward to having a baby for several years and did a lot of lifestyle changes as well as research into child rearing before becoming a parent? Of course not having the stress from financial or relationship problems helps tremendously. I suppose an appropriate definition of happiness is in order. Having a child has certainly brought a lot more meaning and wonderment to my life.
Quotation Nr: 98 Source: **Belkin's parenting blog discussion**	I am not less happy than I was before I had my daughter, but I was never scared of losing her before.

Figure 356: Report: Quotations by Code

When exporting quotations from PDF documents, you may have to correct the formatting in Word and delete unnecessary hard returns. The original layout is of course lost as the table only contains plain text. As mentioned above, you can simply copy and paste the table(s) from the Explorer to a word processing program and edit them there.

Creating And Modifying Style Sheets

If you are familiar with writing XSLT style sheets, use the supplied examples in the section Programming/Demos as a point of departure for your explorations.

Check our Web site, http://www.atlasti.com for additional information on ATLAS.ti's XML support, as well as for an emerging repository of useful style sheets and dedicated service providers who specialize in creating custom applications, interfaces, and conversions on the basis of ATLAS.ti's XML / XSLT capabilities.

Let's take a look at some of the examples for manipulating raw XML data that come with the program. The following sample was created by exporting the Jack the Ripper sample HU to XML. Below you see some excerpts of the raw XML file:

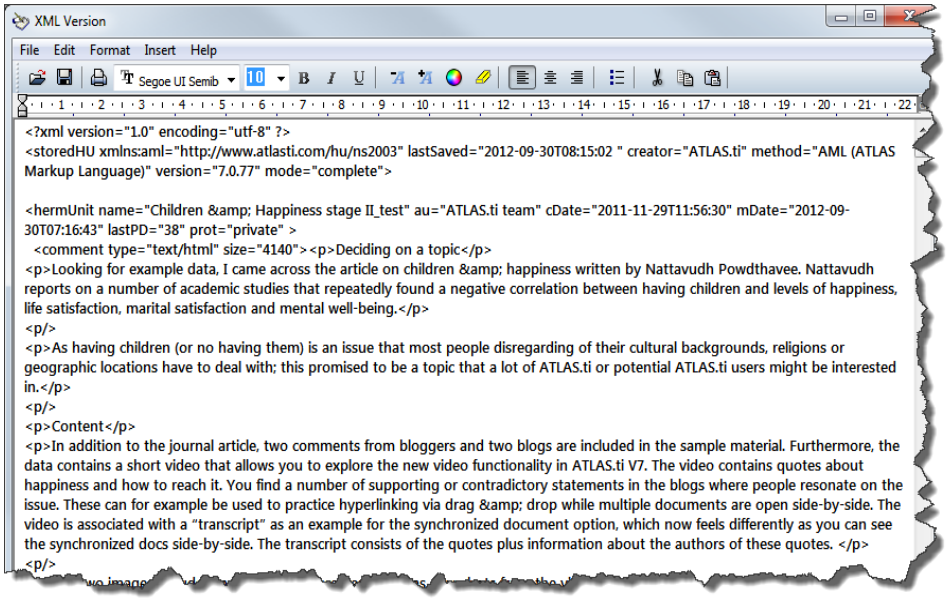


Figure 357: Excerpt of a raw XML file

Three different style sheets were independently applied to this XML file using the XML converter to generate completely different representations from the same source.

It is important to notice that these representations work independently of ATLAS.ti. That is, they "live" exclusively in your Web browser, i.e. are independent of ATLAS.ti. This adds a huge new repertoire of applications to your tool chest, since you can modify the supplied style sheets to your heart's content and even create your own style sheets to suit your unique and very specific needs.

XSLT styles sheets are XML text files. As such, they can be edited with a simple plain text editor. Creating your own style sheets is easy but requires some knowledge of XML and XSLT.

Our partner hypertexxt.com develops XML-based solutions and can help you create custom for programs online and offline data output, data conversion, and even completely innovative solutions for your project. Visit http://atlasti.hypertexxt.com for more information.

Conventions

You will note that the XML Converter displays more than just the file name of the style sheets it found in the XML folder. This additional information is part of the style sheets themselves. The atlas description node within the atlas:data namespace contains this self description. **Style sheets that do not use this header are not displayed in the converter.**

Style sheets are stored in the ATLAS.ti XML folder, which you can conveniently locate via the main menu option **Tools / Explorer / XML Folder**.

Export & Import

This chapter describes procedures to export/import data and structures between ATLAS.ti and other software. The export procedures introduced in this chapter are not always clearly distinguishable from the chapter "Generating Output." While the output options are generally display and print oriented, export of the HU or parts thereof allows for analysis of data and structures created with ATLAS.ti within other software packages.

SPSS Export

ATLAS.ti is intended primarily for supporting qualitative reasoning processes. On the other hand, especially with large amounts of data, it is sometimes useful to analyze the data in a quantitative manner using statistical approaches. ATLAS.ti provides an export function to permit further processing of the *syntax* file by SPSS®, the Statistical Package for the Social Sciences.

Cases & Variables

The case for cases.

The basic components for statistics are cases and variables. The SPSS export function in ATLAS.ti treats codes as variables and data segments (quotations) as "cases."

In contrast to the dichotomous treatment of codes within ATLAS.ti, you can use codes as ordinal or otherwise scaled variables in SPSS jobs by using a specific code-naming convention.

ATLAS.ti exports quotations as cases. You can use SPSS features to use primary documents as cases.

The notion of a "case" here is rather fine-grained and differs from the common understanding of this term. Usually cases in qualitative research refer to persons, interviews, or documents. We chose to treat the smallest unit as a case for the output to SPSS, to ensure that no data is lost during export. Broader information, e. g., which primary document a quotation belongs to, is coded into the variable PD (primary document).

SPSS Syntax File

The output of the SPSS generator is a complete SPSS syntax file containing variable definitions, optionally the data matrix and some default jobs statements:

VAR LABELS are taken from code and code family names.

VALUE LABELS for variables created from codes are:

YES (1) - code is assigned

No (0) - code is not assigned

Every "case" is not only described by the codes, but also by information about position (primary document, start and end position), author, media type and date of creation.

There are two variables for the start position (SY and SX) and two variables for the end position (EY and EX) for a quotation. Depending on the media type, they are used for different start and end coordinates.

	SY (start)	SX (start)	EY (end)	EX (end)
Text (rich text)	paragraph	Column character, quotation based	paragraph	Column character, quotation based
PDF	page	Character count, page based	page	Character count, page based
Audio	---	milliseconds	---	milliseconds
Video	---	milliseconds	---	milliseconds
Image	SX and SY indicate the position of the upper left hand corner of the image		EX and EY indicate the position of the lower right hand corner of the image	
Geo	---	---	---	---

Code and primary document families are handled using COMPUTE statements.

If applicable super codes can turn into non-dichotomous variables.

The SPSS syntax output created with ATLAS.ti is plain ASCII and can be edited before storing it as a file for further processing with SPSS. Below you see an example syntax file:

```
TITLE 'ATLAS.ti - Children & Happiness stage II'.

* SPSS Syntax file generated by ATLAS.ti 7.0.83.
* SPSS Generator Version 3.2
* Date: xxxx.

DATA LIST RECORDS=3
      /1 CASENO (F6.0) PD (F6.0) QU (F6.0)  SY (F8.0) SX (F8.0)
         EY (F8.0) EX (F8.0) TI (F10.0)
       /2 K1 to K77 1-77
```

```
      /3 K78 to K138 1-61

VARIABLE LABELS PD 'Primary Doc'
/QU 'Q-Index'
/SY 'Start x-Pos'
/SX 'Start y-Pos'
/EY 'End x-Pos'
/EX 'End y-Pos'
/TI 'Creation Date'
/K1 '#fam: 1 child'
/K2 '#fam: 2 children'
/K3 '#fam: 3 or more children'
…
…
…
/K136 'study design: demand for a qualitative study'
/K137 'study design: measuring happiness'
/K138 'study design: understanding empirical studies'.

VALUE LABELS K1 to K138 1 'YES' 0 'NO'.

* Represent code families as computed variables.

COMPUTE KF1 = K26 + K27 + K28 + K29 + K37 + K38 + K39 +
K40 + K41 + K42 + K43 + K44 + K45.
COMPUTE KF2 = K37 + K38 + K39 + K40 + K41 + K42 + K44 +
K45 + K66 + K67 + K68 + K69 + K70.
…
…
COMPUTE KF32 = K66 + K67 + K68 + K69 + K70.
COMPUTE KF33 = K58 + K59 + K60.


FORMATS KF1 (F2) KF10 (F1) KF11 (F2) KF12 (F1) KF13 (F1)
KF14 (F1) KF15 (F1) KF16 (F1) KF17 (F1) KF18 (F1) KF19
(F1) KF2 (F2) KF20 (F1) KF21 (F2) KF22 (F2) KF23 (F1)
KF24 (F2) KF25 (F2) KF26 (F1) KF27 (F2) KF28 (F2) KF29
(F1) KF3 (F2) KF30 (F1) KF31 (F1) KF32 (F1) KF33 (F1) KF4
(F2) KF5 (F2) KF6 (F2) KF7 (F1) KF8 (F1) KF9 (F1).

VARIABLE LABELS  KF1 'KF_*Children + Effects of
parenting'.
VARIABLE LABELS  KF2 'KF_*Effects of parenting + The BUT
group [SN 1]'.

…
…
VARIABLE LABELS  KF31 'KF_Survey Items'.
VARIABLE LABELS  KF32 'KF_The BUT group'.
VARIABLE LABELS  KF33 'KF_What children give'.


* Represent primary document families as IF variables.
```

*** Using ALL primary document families.**

```
* PF1 *About happiness.
COMPUTE PF1 = 0.
IF (PD = 6 or PD = 7 or PD = 8 or PD = 9 or PD = 10) PF1
= 1.
* PF2 *blogs.
COMPUTE PF2 = 0.
IF (PD = 2 or PD = 3 or PD = 4 or PD = 5) PF2 = 1.
* PF3 *research report and comments.
COMPUTE PF3 = 0.
IF (PD = 1 or PD = 2 or PD = 4) PF3 = 1.
* PF4 blog discussion.
COMPUTE PF4 = 0.
IF (PD = 3 or PD = 5) PF4 = 1.
* PF5 education::highschool.
COMPUTE PF5 = 0.

…
…
…

FORMATS PF1, PF2, PF3, PF4, PF5, PF6, PF7, PF8, PF9,
PF10, PF11, PF12, PF13, PF14, PF15, PF16, PF17, PF18,
PF19, PF20, PF21, PF22, PF23 (F1).

VARIABLE LABELS  PF1 'PF_*About happiness'.
VARIABLE LABELS  PF2 'PF_*blogs'.
VARIABLE LABELS  PF3 'PF_*research report and comments'.
VARIABLE LABELS  PF4 'PF_blog discussion'.
VARIABLE LABELS  PF5 'PF_education::highschool'.
…
…
…
```

*** Document type declaration.**

```
IF (PD = 31 or PD = 16 or PD = 28 or PD = 14 or PD = 21
or PD = 33 or PD = 22
    or PD = 19 or PD = 3 or PD = 13 or PD = 25 or PD = 5
or PD = 11 or PD = 4
    or PD = 17 or PD = 30 or PD = 29 or PD = 24 or PD =
23 or PD = 2 or PD =
    12 or PD = 7 or PD = 20 or PD = 32 or PD = 18 or PD =
26 or PD = 34 or PD
    = 10 or PD = 27 or PD = 15) MediaType = 1.

IF (PD = 1) MediaType = 2.

IF (PD = 6) MediaType = 3.

IF (PD = 36 or PD = 37 or PD = 38 or PD = 9 or PD = 8 or
PD = 35) MediaType =    4.

STRING Media (A8).
```

```
RECODE MediaType (1="richtext") (2="pdf") (3="video")
(4="graphic") into
    Media.


VARIABLE LABELS  MediaType 'Media Type (Numeric)'.
VARIABLE LABELS  Media 'Media Type (String)'.


BEGIN DATA.
00000100000100000100000001000014990000000100001710350070923
6
00000000000000000000000001000000000000000000000000000000000
0000000000000000000
00000000000000000000000000000000000000000000000000000000000
0000
00000200000100000200000001000050890000000100005274350070929
6
00000000000000000001000000000000000000000000000000000000000
0000000000000000000
00000000000000000000010000000000000000000000000000000000000
0000
00000300000100000300000001000052770000000100005434350070930
4
…
…
…
END DATA.
```

Scaled Vs. Dichotomous Codes

Within ATLAS.ti, a code is always *dichotomous*, because it either refers to a given quotation ("1") or it does not ("0"). Each case (= quotation) can, in respect to the codes, be described as a vector of 0's and 1's. The concept of scaled codes/variables requires a special syntax.

The dimension or scale along which an evaluation is to take place is partitioned into the number of different values required. Assuming that five degrees of fear are to be distinguished in a given analysis, five codes must be created:

```
degree of fear %1
degree of fear %2
degree of fear %3
degree of fear %4
degree of fear %5
```

A special naming convention is necessary to let ATLAS.ti identify variable codes from dichotomous codes.

Naming Convention For Scaled Codes

Each code name is followed by at least one blank and the %-character (you may choose an alternative lead character for the value part through the SPSS initial screen) followed immediately by a value.

This notation allows the system to construct *one* variable from a group of codes (as in the example given above). The new ordinal variable "degree of fear" has as many distinct values as the number of codes the user defined according to the convention. In SPSS syntax the transformation of the data could be expressed as follows:

```
if (degree of fear %1 eq 1) degree of fear=1
if (degree of fear %2 eq 1) degree of fear=2
if (degree of fear %3 eq 1) degree of fear=3 etc.
```

You are not restricted to numerical values; anything that follows the special symbol is interpreted as a value. The width reserved in the Data List statement of the syntax file is the maximum width of the largest of all values collected for a variable code:

```
Name %Christine
Name %Thomas
Name %Hal
```

The variable code "Name" will have three values: "Christine," "Thomas" and "Hal." The width reserved in the data list statement will be 9, determined by the maximum width value "Christine."

Use comments for an explanation of scaled code's values

A comment linked to such codes could be used as an explanation of the values to instruct researchers in coding the material.

Keep in mind that ordinal codes only have meaning in the context of being used by SPSS. Within ATLAS.ti, the differently valued codes are treated like every other code: dichotomously.

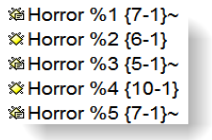


Figure 358: Example of a scaled variable

Check '*The Sample.hpr6*' for an application of an ordinal code. You find the file in the samples folder, which you can access via **Tools / Explorer / Samples Folder**. The name of the code is Horror, split into Horror %1 to Horror %5.

Do not assign mutually exclusive codes to the same quotation!

Do not assign more than one scaled variable value (e. g., fear %1 and fear %2) to the same quotation. Although ATLAS.ti permits an arbitrary number of codes to be attached to a quotation, this would not make much sense with mutually exclusive values of scaled variables. If you do so, the SPSS generator will simply ignore additional values after processing the first one it finds for a given quotation. Since it cannot be guaranteed which value will be detected first, this will most likely produce unpredictable results in the SPSS job generated.

How SPSS Export Handles Families

Treatment Of Code Families

Code families in SPSS jobs simply count the occurrences of assignments of any of its contained codes for the current case (=quotation) using COMPUTE statements. Below an example for computing a code family variable is provided:

```
COMPUTE KF1 = K10 + K11 + K12 + K13 + K14 + K15.
VARIABLE LABELS KF1 'KF_Investigation'.
```

Scaled codes are ignored in the computation of code family variables.

Treatment Of Primary Document Families

Each case (= quotation) has its primary document index automatically generated by the SPSS export function. The value of a quotation that is part of a primary document that is a member of a primary document family will be computed as a "1" or "0." In the SPSS syntax file the PD family variable is computed as follows:

```
* PF1 Description of Victims.
COMPUTE PF1 = 0.
IF (PD = 5 or PD = 6 or PD = 8 or PD = 9 or PD = 10) PF1
= 1.

VARIABLE LABELS PF1 'PF_Description of Victims'.
```

Missing Values

Missing values are only computed for scaled variables. A sequence of blanks (depending on the format width of the variable) is inserted in the data matrix for any missing value.

Creating SPSS Output

- From the HU editor's main menu select **Project / Export to / SPSS Job**.
- The Send Output to: dialog window opens. Select a target location.
- Next, the SPSS Job Generation Window opens:

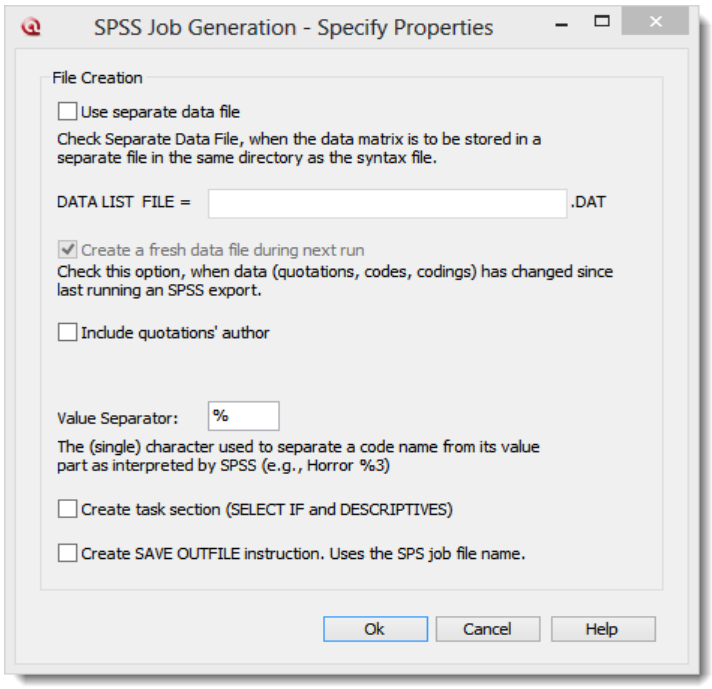

SPSS Job Generation - Specify Properties
File Creation
Use separate data file
Check Separate Data File, when the data matrix is to be stored in a separate file in the same directory as the syntax file.
DATA LIST FILE =
.DAT
Create a fresh data file during next run
Check this option, when data (quotations, codes, codings) has changed since last running an SPSS export.
Include quotations' author
Value Separator:
%
The (single) character used to separate a code name from its value part as interpreted by SPSS (e.g., Horror %3)
Create task section (SELECT IF and DESCRIPTIVES)
Create SAVE OUTFILE instruction. Uses the SPS job file name.
Ok
Cancel
Help

Figure 359: Property window for SPSS job

Use separate file: When checked, the data matrix is written to a separate file. This is mandatory if the size of the matrix exceeds a certain size. SPSS cannot handle large data sets within a syntax file. For regular size projects, leave this option unchecked.

Specify the name of the data set. This name is used as the file name and as the FILE reference from the DATA LIST section. You only need to enter a name here if you generate separate data files.

"Create a fresh data file during next run" can be unchecked if the data has not changed since it was last created. This may save some processing time.

Include quotation's author. Check if you want to export an additional variable that indicates the author for each quotation. This is for example useful if you want to use SPSS to calculate inter-coder reliability.

The value separator is % by default, but can be changed to something else. See "Scaled vs. Dichotomous Codes".

Create task section. Enable this option if you want templates for procedures included at the end of the syntax file.

Create SAVE OUTFILE instruction. Enable this option if you want SPSS to save the data as *.sav file after running the syntax file..

Specify all desired properties and then click OK.

The output is generated and sent to the selected target location. When directed to a text editor, you can edit the job statements and other parts of the syntax file before proceeding. If file separation is selected, two files – the SPSS job file and the data file - are created simultaneously.

You can directly RUN the result if SPSS is installed on your computer and the SPS extension has been associated with SPSS.

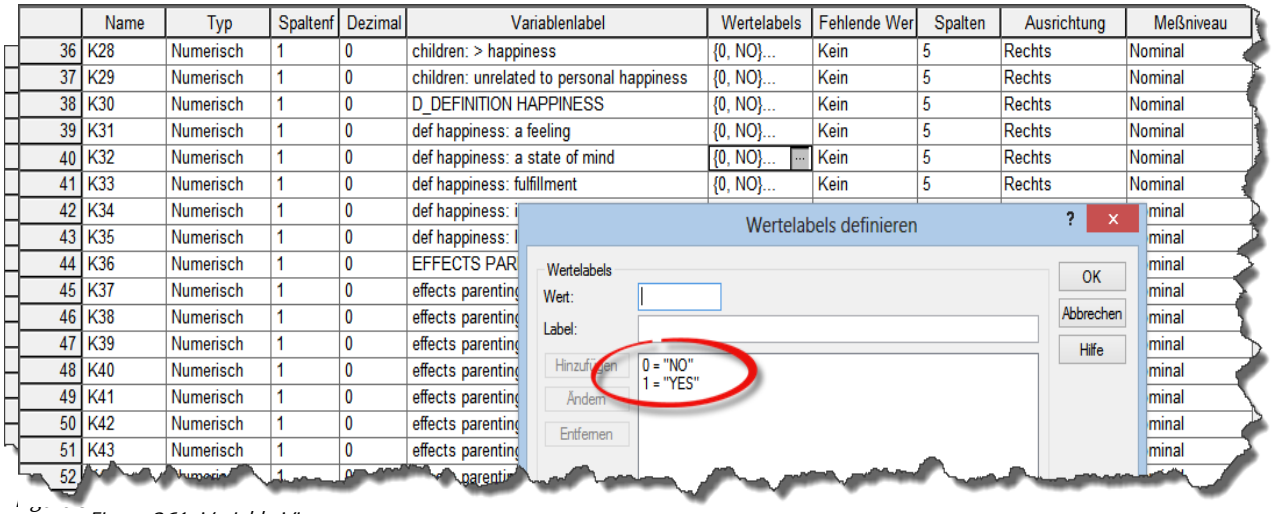

Name
Typ
Spaltenf
Dezimal
Variablenlabel
Wertelabels
Fehlende Wer
Spalten
Ausrichtung
Meßniveau
36 K28 Numerisch 1 0 children: > happiness {0, NO}... Kein 5 Rechts Nominal
37 K29 Numerisch 1 0 children: unrelated to personal happiness {0, NO}... Kein 5 Rechts Nominal
38 K30 Numerisch 1 0 D_DEFINITION HAPPINESS {0, NO}... Kein 5 Rechts Nominal
39 K31 Numerisch 1 0 def happiness: a feeling {0, NO}... Kein 5 Rechts Nominal
40 K32 Numerisch 1 0 def happiness: a state of mind {0, NO}... Kein 5 Rechts Nominal
41 K33 Numerisch 1 0 def happiness: fulfillment {0, NO}... Kein 5 Rechts Nominal
Wertelabels definieren
Wertelabels
Wert:
Label:
Hinzufügen
Ändern
Entfernen
0 = "NO"
1 = "YES"
OK
Abbrechen
Hilfe

Figure 361: Variable View

Export & Import Using XML

Codes, memos, or entire HUs can be exported into the XML format. Exporting codes and memos as XML files allows you to transfer all or only selected codes or memos between HUs using the import function. (If you are looking to merge complete HUs, check the section on "Merging Hermeneutic Units").

Exporting the entire HU in XML opens up numerous possibilities for individual reports and conversion for other applications.

Exporting And Importing Codes In XML

Exporting Codes

The code's name, author, creation and modification date, as well as the query for super codes and their respective comments are included in the export format. However, no links to quotations or other objects are included. You can export all codes, or selected codes, or all codes that pass the current filter.

To export all codes (or all filtered codes),

- Choose **Codes / Import/Export / Export All Codes (XML)** from the main menu.
- In the output target dialog select **File**. Confirm the default name, or enter a new file name, and save the file to disk

To export a list of selected codes,

- Open the Code Manager and select one or more codes.
- Choose **Codes / Import/Export / Export Code (XML)** from the main menu
- In the output target dialog select **File**. Confirm the default name, or enter a new file name, and save the file to disk.

Importing Codes

When you import codes in XML format, additional information like the date of creation and modification, the author and code comments (in plain text only) are also imported.

This is how you do it:

- Select **Codes / Import/Export /Import Codes (XML)** from the main menu.
- A file dialog window opens. Select the XML file that you previously created and click the **Open** button.

The code list including all comments is immediately imported and displayed in the Code Manager. If conflicts occur, you receive a warning and have the option to overwrite only the code for which a conflict was detected, or all codes.

Figure 362: Options to resolve conficts when importing XML codes

Exporting And Importing Memos In XML

Exporting Memos

You can export selected memos or all memos.

To export all memos,

- Choose **Memos / Import/Export / Export All Memos (XML)** from the main menu.

In the output target dialog select **File**. Confirm the default name, or enter a new file name, and save the file to disk.

To export one or more selected memos,

Open the Memo Manager and select one or more memo(s).

Choose **Memos / Import/Export / Export Memo (XML)** from the main menu.

Select **File** as the output destination. Confirm the default name, or enter a new file name, and save the file to disk.

Importing Memos

Select **Memos / Import/Export / Import Memos (XML)** from the main menu.

A file dialog window opens. Select the XML file and click the **Open** button.

If a naming conflict occurs, you can choose to overwrite all memos, to NOT overwrite the memo for which a conflict was detected, or to never overwrite an existing memo.

Figure 363: Options to resolve a conflict when importing XML memos

When using XML as an exchange format to transfer memos and codes between HUs, or when creating XML version HUs, you will lose some formatting of the texts contained in the memos and codes.

Exporting The Hermeneutic Unit In XML

Instead of just exporting a small selected part of your project, you can also export the entire HU as an XML file. The ATLAS.ti XML export option for HUs can be used for different purposes:

- For internal use in the XML converter
- For external use as a non-proprietary format, e. g. to archive data. The qualitative data archive in Essex for example uses ATLAS.ti's XML format as

blue print for their standard. See: http://www.esds.ac.uk/qualidata/about/introduction.asp

- As a means to import data into other applications that offer an import function like the software QDA Miner. QDA Miner offers further quantitative analysis tools like cluster, factor and correspondence analysis and thus for some studies it presents a very useful complement to ATLAS.ti.

To export an HU for any of the above mentioned purposes, select either the down arrow next to the XML button in the main tool bar and then the option **Export HU to XML**, or form the main menu select **Project / Export / Export HU to XML.**

Select the amount of content that is needed (excluding primary documents, including meta information or including full content of quotations as well).

Select the output destinatino (Editor, Printer, File, or File & Run), see "Output Destinations").

If you select the 'File' or 'File & Run' option, enter a file name (or accept the default name) and select the folder where to store the XML file. If you do not want to apply style sheets, i. e., you need the output for archiving purposes, or want to import your project into another applicatin, you can save the resulting XML file to any location.

If you want to apply style sheets, save the XML file in the suggested location, the ATLAS.ti XML folder.

HTML Export

The HU to XML export and conversion utility allows an alternative and very powerful and flexible approach to creating web pages for users willing to learn how to "program" style sheets. Using HTML Export and specifying the layout using the HTML generator on the other hand is simply a matter of clicking options without any need to learn HTML.

Potential reasons for creating HTML versions of Hermeneutic Units include:

Create a web publication. Even intermediary results can be presented to other researchers without much effort. These reports are readable without needing ATLAS.ti on every system that has a web browser available.

Create a report. A convenient way to create a printout of (almost) all objects contained in a Hermeneutic Unit using a web browser.

ATLAS.ti's HTML code generation converts the Hermeneutic Unit currently being worked with into an HTML document. The user can control the HTML creation entirely via the HTML Preferences dialog box. Of course, the generated code can be edited and refined with a plain text editor or specialized HTML tools if you are knowledgeable in HTML.

Exporting An HU As HTML Document

Specify all desired characteristics using the ATLAS.ti HTML setup under **Tools / General Preferences / HTML Preferences.**

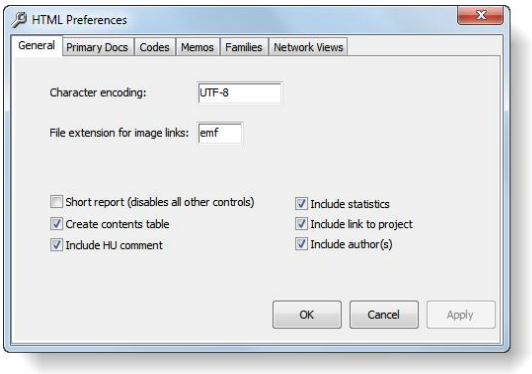


Figure 364: The HTML preference window

Select **Project / Export / HTML** from the main menu.

Select **File & Run** as the output destination to immediately open the generated output in a web browser. Select **Editor** if you want to modify the source before storing it.

Below you see an example of how an ATLAS.ti project in HTML format may look like:

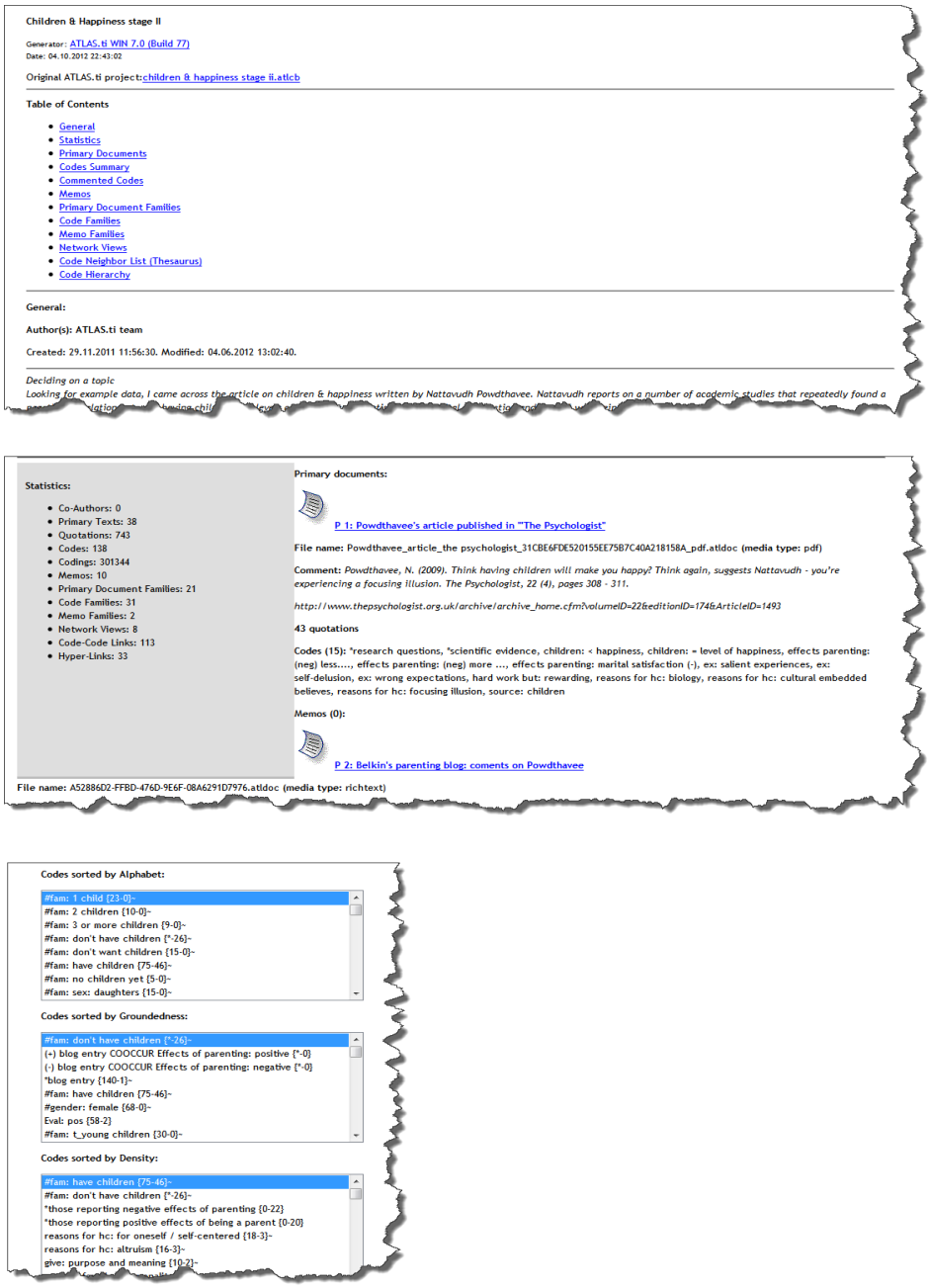

Children & Happiness stage II
Generator: ATLAS.ti WIN 7.0 (Build 77)
Date: 04.10.2012 22:43:02
Original ATLAS.ti project:children & happiness stage ii.atlcb
Table of Contents
General
Statistics
Primary Documents
Codes Summary
Commented Codes
Memos
Primary Document Families
Code Families
Memo Families
Network Views
Code Neighbor List (Thesaurus)
Code Hierarchy
General:
Author(s): ATLAS.ti team
Created: 29.11.2011 11:56:30. Modified: 04.06.2012 13:02:40.
Deciding on a topic
Looking for example data, I came across the article on children & happiness written by Nattavudh Powdthavee. Nattavudh reports on a number of academic studies that repeatedly found a
Statistics:
Co-Authors: 0
Primary Texts: 38
Quotations: 743
Codes: 138
Codings: 301344
Memos: 10
Primary Document Families: 21
Code Families: 31
Memo Families: 2
Network Views: 8
Code-Code Links: 113
Hyper-Links: 33
Primary documents:
P 1: Powdthavee's article published in "The Psychologist"
File name: Powdthavee_article_the psychologist_31CBE6FDE520155EE75B7C40A218158A_pdf.atldoc (media type: pdf)
Comment: Powdthavee, N. (2009). Think having children will make you happy? Think again, suggests Nattavudh - you're experiencing a focusing illusion. The Psychologist, 22 (4), pages 308 - 311.
http://www.thepsychologist.org.uk/archive/archive_home.cfm?volumeID=22&editionID=174&ArticleID=1493
43 quotations
Codes (15): *research questions, *scientific evidence, children: < happiness, children: = level of happiness, effects parenting: (neg) less...., effects parenting: (neg) more ..., effects parenting: marital satisfaction (-), ex: salient experiences, ex: self-delusion, ex: wrong expectations, hard work but: rewarding, reasons for hc: biology, reasons for hc: cultural embedded believes, reasons for hc: focusing illusion, source: children
Memos (0):
P 2: Belkin's parenting blog: coments on Powdthavee
File name: A52886D2-FFBD-476D-9E6F-08A6291D7976.atldoc (media type: richtext)
Codes sorted by Alphabet:
#fam: 1 child {23-0}~
#fam: 2 children {10-0}~
#fam: 3 or more children {9-0}~
#fam: don't have children {*-26}~
#fam: don't want children {15-0}~
#fam: have children {75-46}~
#fam: no children yet {5-0}~
#fam: sex: daughters {15-0}~
Codes sorted by Groundedness:
#fam: don't have children {*-26}~
(+) blog entry COOCCUR Effects of parenting: positive {*-0}
(-) blog entry COOCCUR Effects of parenting: negative {*-0}
*blog entry {140-1}~
#fam: have children {75-46}~
#gender: female {68-0}~
Eval: pos {58-2}
#fam: t_young children {30-0}~
Codes sorted by Density:
#fam: have children {75-46}~
#fam: don't have children {*-26}~
*those reporting negative effects of parenting {0-22}
*those reporting positive effects of being a parent {0-20}
reasons for hc: for oneself / self-centered {18-3}~
reasons for hc: altruism {16-3}~
give: purpose and meaning {10-2}~

Figure 365: Excerpts of an HTML output

Special Considerations

Size Of HTML Documents

The more options you specify in the HTML Preferences dialog, the bigger your HTML file will be. This may not be a concern if you are using the documents in-house. However, when making such documents accessible to others via the Internet, slow transmission rates may demand a reduced set of output options. In-lined (= content included in the web page) primary documents may boost the size considerably (and therefore transmission times) depending upon the size of the documents.

Rich Text

Rich Text formatted documents cannot be included in the resulting HTML code. All contents from rich text primary documents (including Word files), comments or memos are converted to plain text for HTML output.

Linking Primary Documents To The HTML File

For each PD, there is an embedded file link. In order to be able to open your primary documents via this link the the HTML file, you need to copy the original files into the ATLAS.ti HTML folder. This folder can easily located via the main menu option **Tools / Explorer / HTML Folder**.

Network View Images

Checking the option to include Network Views is not sufficient to display them in an HTML document. The graphic files have to be created manually for every network that you want to include. By default, a network view entry looks as follows:

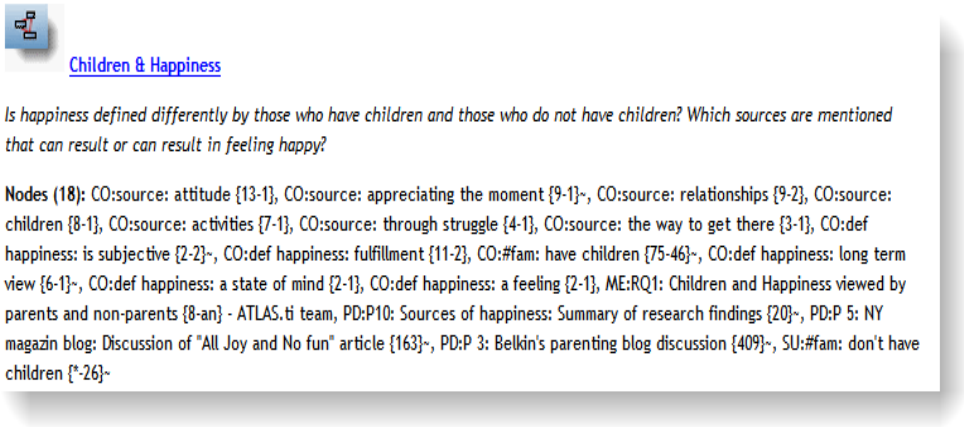

Children & Happiness
Is happiness defined differently by those who have children and those who do not have children? Which sources are mentioned that can result or can result in feeling happy?
Nodes (18): CO:source: attitude {13-1}, CO:source: appreciating the moment {9-1}~, CO:source: relationships {9-2}, CO:source: children {8-1}, CO:source: activities {7-1}, CO:source: through struggle {4-1}, CO:source: the way to get there {3-1}, CO:def happiness: is subjective {2-2}~, CO:def happiness: fulfillment {11-2}, CO:#fam: have children {75-46}~, CO:def happiness: long term view {6-1}~, CO:def happiness: a state of mind {2-1}, CO:def happiness: a feeling {2-1}, ME:RQ1: Children and Happiness viewed by parents and non-parents {8-an} - ATLAS.ti team, PD:P10: Sources of happiness: Summary of research findings {20}~, PD:P 5: NY magazin blog: Discussion of "All Joy and No fun" article {163}~, PD:P 3: Belkin's parenting blog discussion {409}~, SU:#fam: don't have children {*-26}~

Figure 366: Network Views in HTML files

TO INSERT NETWORK VIEW IMAGES INTO HTML FILES

At first you need to create a graphic file of the network view. This file then needs to be linked to the generated HTML file.

Open the Network View in a Network Editor.

Set the fonts, colors, and the size of the window. Arrange the nodes as desired.

Choose **Network / Save as Graphic File** from the network editor's main menu. Network views can be saved in different formats. Choose *Enhanced Metafile (*.emf)* as file format, since this is also the default format used by the HTML generator.

Save the file, e.g. on the desktop and then copy it into the ATLAS.ti HTML folder. The HTML folder can easily located via **Tools / Explorer / HTML Folder**.

Open the HTML file in the **Windows Explorer** and go to the Network View section, e. g. by clicking on the link in the table of contents:

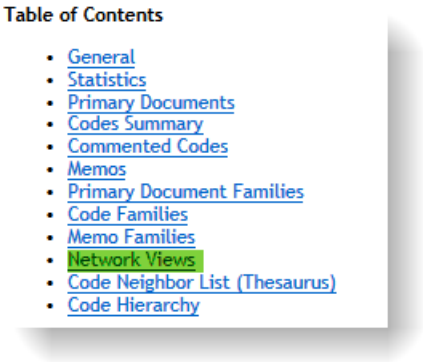


Figure 367: Jumping to the network view section by clicking on the link in the table of contents

In addition to the textual information and the network view bitmap, you see the image of the saved network view.

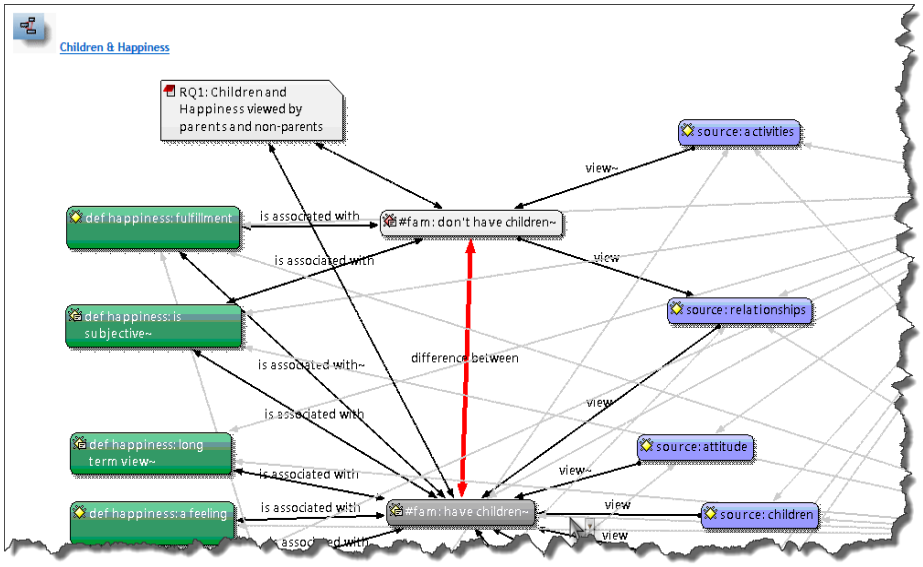


Figure 368: A network view image inserted into an HTML output

In other Browsers like Firefox, you can only open the network as external image. It is not embedded.

Export And Import Of Document Attributes (PD Families)

Please refer to "PD-Family Table" for details on how to export and import document attributes via an Excel™ table.

Export A Windows Project For Mac

Select **Project / Export / Create Transfer Bundle.**

Exporting A Mobile Project (iPad App)

To export your ATLAS.ti Mobile project from the iPad app to continue your work in the desktop version (e.g., to run more sophisticated analysis, to link various objects, or to create network views), two options are available: You can export your project to the **document directory** of your iPad or to a **Dropbox** account.

If you export it to the document directory, you can download the project from iTunes to your Mac or PC.

If you upload your project to Dropbox for the first time, ATLAS.ti Mobile will ask you to enter your access data. You can log out from your Dropbox account any time (tap the SETTINGS button). This is necessary, for instance, if you want to change the Dropbox account that is linked to your ATLAS.ti Mobile app.

- Select a project and then tab the EXPORT button.
- Select the destination: DOCUMENTS DIRECTORY or DROPBOX. You will see a progress report. If you selected Dropbox as destination, the data are uploaded to your Dropbox account (thus you need an internet connection) and it takes a bit longer than saving the project to the iPad document folder.

Accessing Your Project In The Documents Directory

- To access your project via the Documents Directory, connect your iPad to your Mac or PC. Wait for iTunes to start.
- Select your IPad from the sidebar.
- Select the "**Apps**" tab.
- Scroll down to the FILE SHARING interface.
- Select ATLAS.ti from the list of File Sharing applications on the left.
- Select the folder with your project name and click on the SAVE AS button at the bottom of the screen.

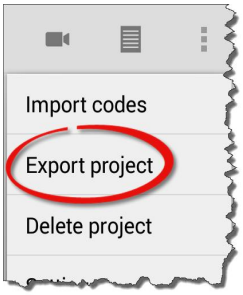
Figure 369: List of file sharing applications

Accessing Your Project In The Dropbox

Open your Dropbox folder and look for select the folder **Apps**.

Within the Apps folder you find an ATLAS.ti folder and therein a folder that has the same name as your project.

Exporting A Mobile Project (Android App)



To continue your work in the desktop version, e.g., to run more sophisticated analysis, to link various objects, or to create network views, export your Mobile project.

To export your project, tab the overflow menu in the action bar and select the option **Export project.**

Depending on the size of the documents, it may take a couple of minutes to export a project. Tab **Continue**. You will see a small ATLAS.ti icon in the notification bar (top left) or your device. You can continue to work while the project is being exported.

A small green check mark indicates that the export is completed. The project is now stored on your device in ".hprm" format.

To send the project to a desktop computer that has ATLAS.ti desktop installed, pull down the notification bar and tab "P*roject exported to*:"

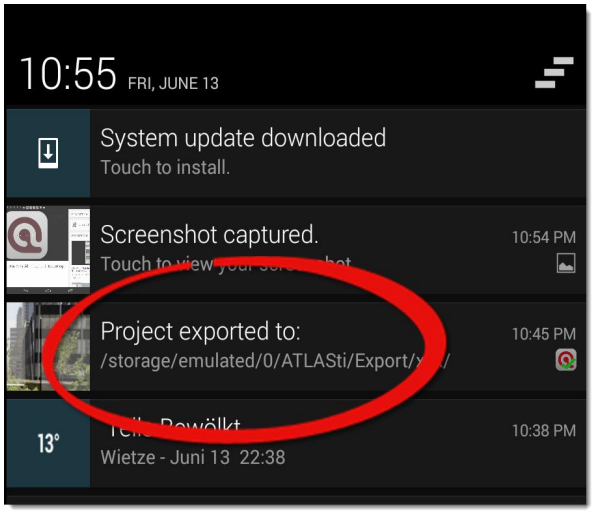


Figure 370: Exported ATLAS.ti mobile project in the notification bar

The Export Notification screen opens:

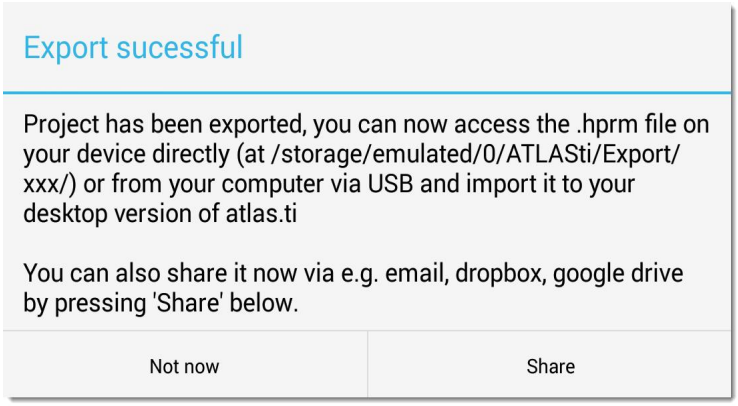

Export sucessful
Project has been exported, you can now access the .hprm file on your device directly (at /storage/emulated/0/ATLASti/Export/xxx/) or from your computer via USB and import it to your desktop version of atlas.ti
You can also share it now via e.g. email, dropbox, google drive by pressing 'Share' below.
Not now
Share

Figure 371: Export notificaiton screen

Tab **Share**. You can now copy the file to your dropbox or any other cloud or connected drive.

You can also access the file via a file explorer on your device. If your device is connected to a computer via USB, you can also copy and paste it to a folder on your computer. You can find your exported projects in the *ATLAS.ti/Export* folder.

Importing A Mobile Project To ATLAS.ti Desktop

Import An IPad Project

Via The Main Menu

Double-click on the project folder that you either downloaded from iTunes, or the one in your ATLAS.ti Dropbox folder. Inside the folder you'll now find a folder that contains your documents plus your project file.

Figure 372: Document folder and project file

Open ATLAS.ti on your computer and select **Project / Import / Import ATLAS.ti iPad / Android project**.

Go to the folder where your iPad project is stored and select the project file. You may not see the file extension '*hprx*' if your Windows Explorer is not set to show file extensions.

A progress bar tells you how far the process has come along. Once finished ATLAS.ti opens a new HU. This HU has the name of your iPad project.

Via Drag & Drop

Open ATLAS.ti on your PC and drag the iPad project file onto the title bar of the ATLAS.ti window.

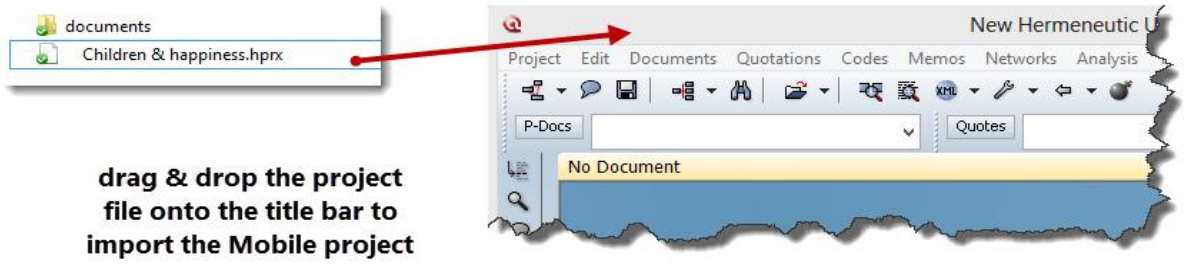

documents
Children & happiness.hprx
drag & drop the project file onto the title bar to import the Mobile project
New Hermeneutic U
Project Edit Documents Quotations Codes Memos Networks Analysis
P-Docs
Quotes
No Document

Figure 373: Importing the Mobile project to ATLAS.ti desktop via drag & drop

You do not need to create a new Hermeneutic Unit first before importing your iPad project. ATLAS.ti will create a new HU. The default name is the name of your iPad project.

Import An Android Project

In ATLAS.ti select the option **Project / Import ATLAS.ti iPad/Android Project.**

Locate the Android project file (''*.hprm') and import it.

Alternatively, you can drag and drop the ".hprm" file onto the ATLAS.ti window. You do not need to create a new Hermeneutic Unit first. Just drag the file onto the title bar of the currently opened HU. ATLAS.ti will create a new HU from your Android project.

Preference Settings

All settings from the Preferences dialog are stored in the USER.INI file which resides in the user's system folder. The user's system folder is configured during installation of ATLAS.ti. You can access this folder any time via the main menu **Tools / Explorer / User System Folder.**

Most changes made to general settings won't take effect until the next time you access their respective functions.

To Set General Preferences

Select the main menu option **Tools / Preferences / General Preferences** or click the "General Preferences" button in the main toolbar (see left).

Tab: General

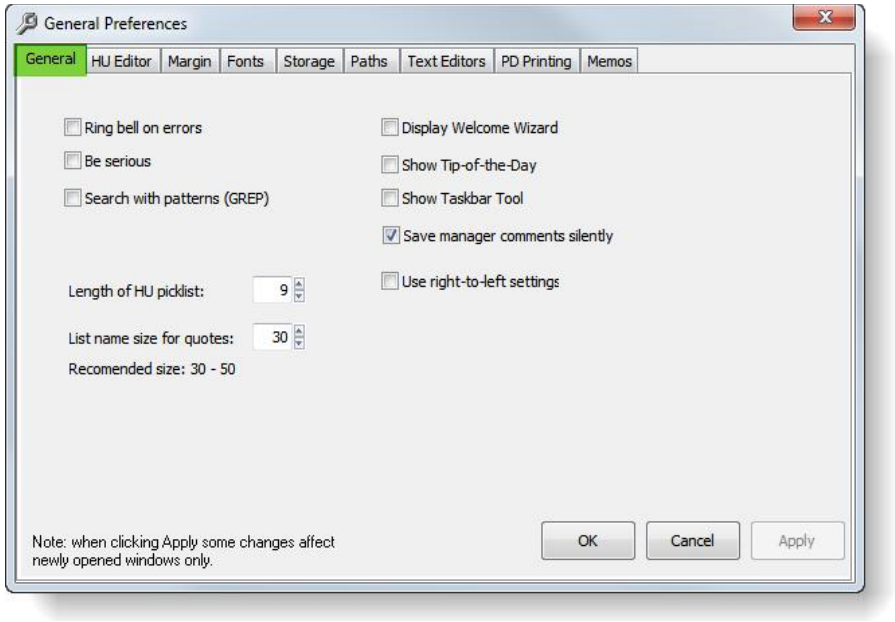


Figure 374: General Preferences window: tab General

Ring bell on errors

Turn system beeps off and on.

Be serious

Reduce the amount of humor thrown at you in the user interface.

Search with patterns (GREP)

When turned on, the text search and auto-coding functions use *regular expressions* (see "GREP Search"). This setting is also controlled by the respective checkbox in the text search and auto-code window.

Show Taskbar Tool

Displays an icon in the task bar to easily access the ATLAS.ti window manager.

Length of HU pick list

Specifies the maximum number of Hermeneutic Units that appear in the "recently used" list at the bottom of the File menu or in the HU Browser.

List name size for quotes

By default, the display name of quotations is 30 characters. The recommended length is between 30 and 50 characters. Note that size changes apply only to subsequently created or modified quotations. If you want them to apply to all existing quotations, from the main menu select **Quotations / Miscellaneous / Update Names**.

Display Welcome Wizard

Displays the Welcome screen offering a few start-up options. May be changed in the Welcome screen.

Show Tip-Of-the-Day

Displays a tip when starting ATLAS.ti

Show Taskbar Tool

Displays an icon in the task bar to easily access the ATLAS.ti window manager.

Save manager comments silently

Select this option if modifications in the text area of Object and Family Managers should automatically be saved when selecting another item.

Use right-to-left setting

Activates special user interface features (right text alignment, scrollbars left, mirroring of tree and list views) for RTL languages such as Hebrew or Arabic.

Tab: HU-Editor

The settings in this section affect the appearance and behavior of the HU editor and its "child" windows.

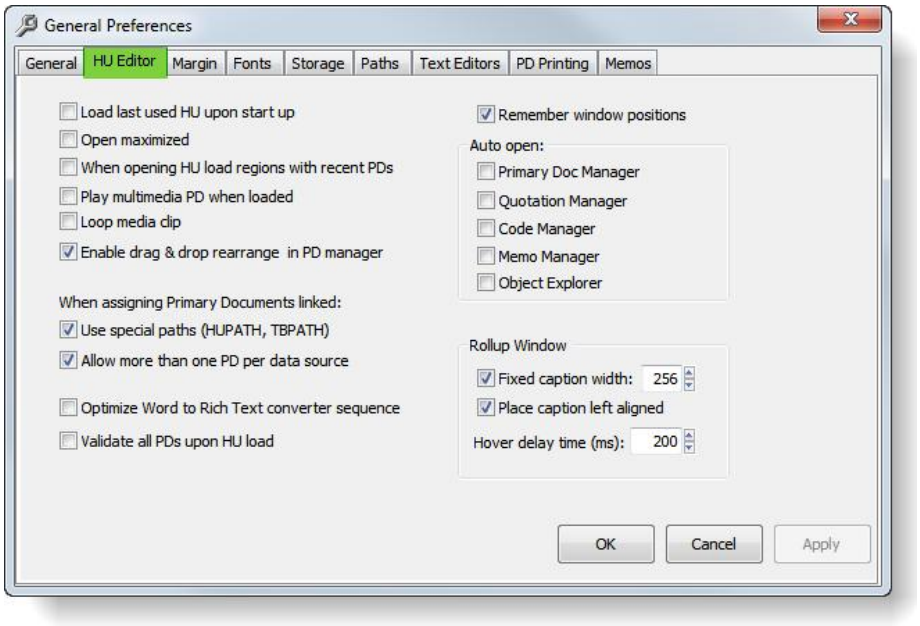


Figure 375: General Preferences window: tab HU Editor

Load last used HU upon start-up

When checked, the last HU closed is automatically loaded.

Open maximized

Opens the HU Editor in full screen mode.

When opening HU load regions with recent PDs

Loads all primary documents of the last session that were loaded in one or more regions.

Play multimedia PD when loaded

Activates immediate play of a multimedia PD when it is loaded. Display of last used quotation is not affected by this option.

Loop media clip

By default, a media document is only played once after activating and loading it. Activate this option to repeat the clip until stopped manually.

Enable drag & Drop rearrange in PD manager

If disabled, you cannot move the position of the primary documents in the PDocs Manager.

Use special paths (HUPATH, TBPATH)

This option only applies to linked documents. If activated, one of the two abstract paths (HUPATH or TBPATH) is used if applicable (path or part of the document's path matches a special path). For more information on abstract paths see the ATLAS.ti version 6 manual. In version 7, linked documents should only be used exceptionally, and if so the HU or TBPATH are recommend.

Remember windows positions

Stores the position and size of the HU Editor and most other windows.

Auto open

Upon opening the HU editor, automatically opens the selected manager(s) and/or Object Explorer.

Roll-up Window

You can specify to roll up each window by clicking on the icon on the top left of a window. When you then move the cursor outside the window and left click, the main part of the window "rolls up" to save space and only the caption remains. Under the HU Editor preferences you can set the width and the alignment of the caption and how quickly the window should appear/disappear.

Tab: Margin

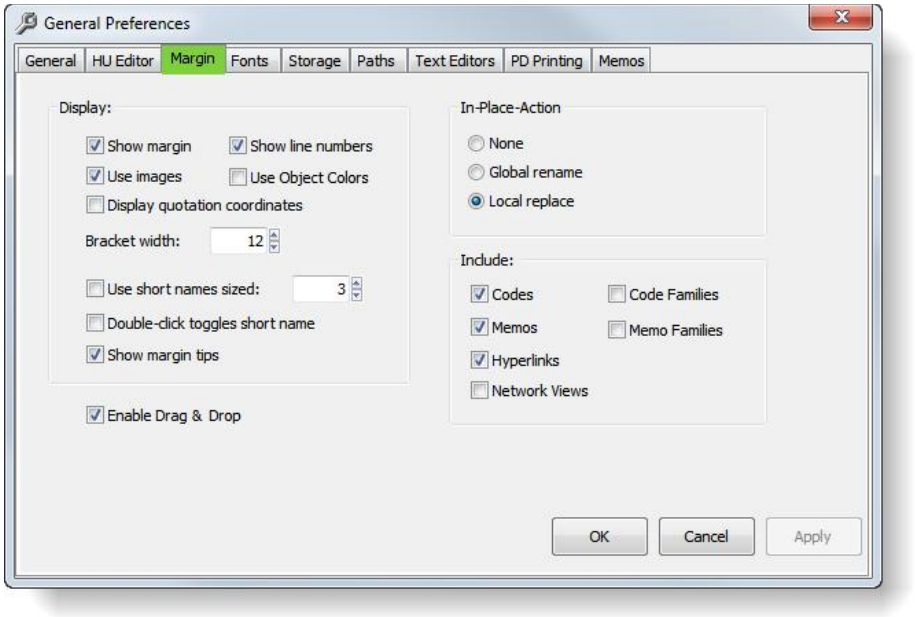


Figure 376: General Preferences window: tab Margin

Show margin

When checked, displays the margin area to the right of the primary document. This option can also be changed through the **Views/Margin Area** menu item or the corresponding tool button.

Show line numbers

Shows **paragraph** number pane for textual PDs.

Use images

Adds a type-related icon to the label of the margin objects.

Use Object Colors

Displays codes in user-defined colors. You can set code colors in either the Code Manager or in a Network View editor.

Display quotation coordinates

Adds the start and end-position (paragraphs [text], [y-]coordinates [graphic] etc.) of the quotations to the label of the margin objects.

Bracket width

Sets the width of the brackets shown for a quotation in the margin.

Use short name sized

Activate this option to display abbreviated names for the margin objects. The character limit is chosen in the field next to this option.

Double click toggles short name

When selecting this option, you can change back and forth between full and short names by double clicking in the margin area.

Show margin tips

When moving with the mouse pointer over an entity in the margin area, a 'tip' is displayed providing information about the entity, such as its name and comment when this option is activated.

Enable Drag & Drop

Allows drag & drop operation in the margin (like drag & drop coding, replacing objects, moving codes, hyper-linking).

In-Place-Action

This refers to what happens when you are in-place editing a margin object.

None: No in-place-action will occur.

Global rename: The selected object will be renamed; this affects all occurrences of this object.

L**ocal replace:** The selected object will be replaced at the current position with an object of the same type and with a name as entered. If no object with this name exists, it will be created (only for codes or memos).

Include

Codes**,** Memos and Hyperlinks may be selected separately to be displayed in the margin area. You can also change these settings using the context menu in the margin area.

Tab: Fonts

Set the font characteristics for the HU Editor and other windows and controls.

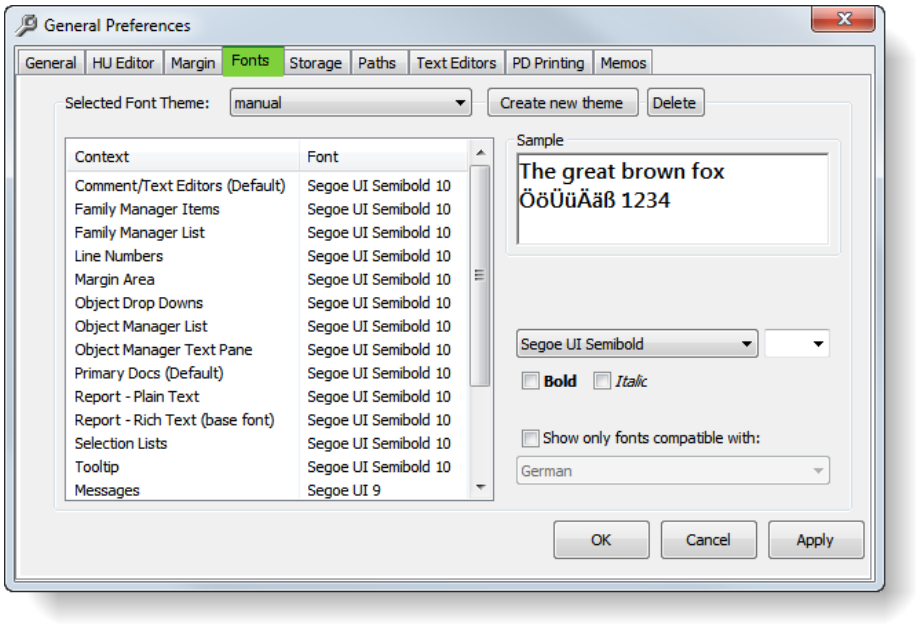


Figure 377: General Preferences window: tab Fonts

Select Font theme

You can create different font themes, depending on various tasks or project languages. If for instance you work at different computers and there is a high resolution screen at one location, the standard font size of 8 might be too small. If you want to present your project connecting your computer to a Beamer, you may want to use a larger font so that your audience can read more comfortably. If your data is in a language that uses special characters, you need to set a font that is compatible with this language (see below: Show only fonts compatible with:)

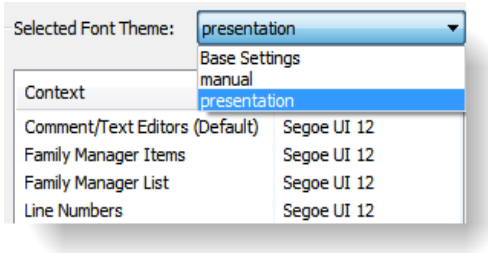


Figure 378: Using different font themes

In Figure 377 and Figure 378 for example you that that a theme has been created for preparing screen shoots for this manual using Segoe UI 10, and another theme for presentations using Segoe UI 12.

Create new theme

Click this button to create a new them.

Delete

Click this button to delete the selected theme.

Font sample

Displays a text sample using the selected font.

Show only fonts compatible with:

You can reduce the list of available fonts to only those that are compatible with the language of your project data.

You can select all or only some objects using common Windows selection techniques to change the font for all selected objects at once.

Tab: Storage

The settings in this section relate to backup and file security modes.

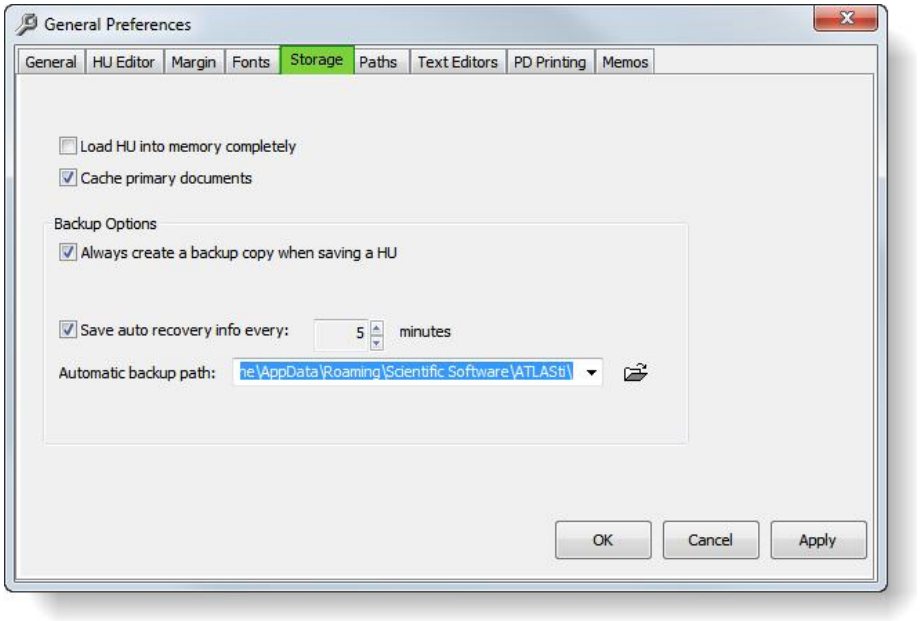


Figure 379: General Preferences window: tab Storage

Load HU into memory completely

During a work session, an HU needs to access the HU file to load memos, etc. If you expect this file to be unavailable at times (e.g., because of an unreliable local network), you should check this option. However, loading times and memory consumption are negatively affected when loading the HU completely.

Cache primary documents

The content of primary documents will be kept available in memory for further access once it has been loaded. (See "Content Caching" for more information.)

Always create backup copy when saving a HU

When saving the HU, a copy of the existing file with the added extension '*backup*' is created in the same directory.

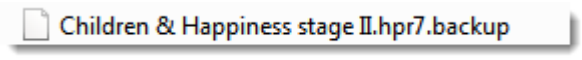


Figure 380: File name of backup file for HU

Save auto recovery info every … minutes

ATLAS.ti saves recovery information without any user intervention. The idea behind such auto-backups: Should ATLAS.ti or Windows crash or in any other way be terminated irregularly (e.g., a power failure), the amount of work lost is

only the work conducted since the last auto-backup. When exiting ATLAS.ti or after saving the HU, the auto recovery information is removed automatically. It is strongly recommended to keep this feature on.

Note: If you are in edit mode, the timer backup is disabled. This means if your computer crashes while you are in edit mode, the latest recovery file is from a time before you started the editing session.

Automatic backup path

By default, the folder "*Auto Backups*" in the user's personal data folder hierarchy is used as the repository for periodically stored recovery information. You can change this by clicking on Browse button.

Tab: Paths

The settings of this section affect the path reference for the common ATLAS.ti output folders:

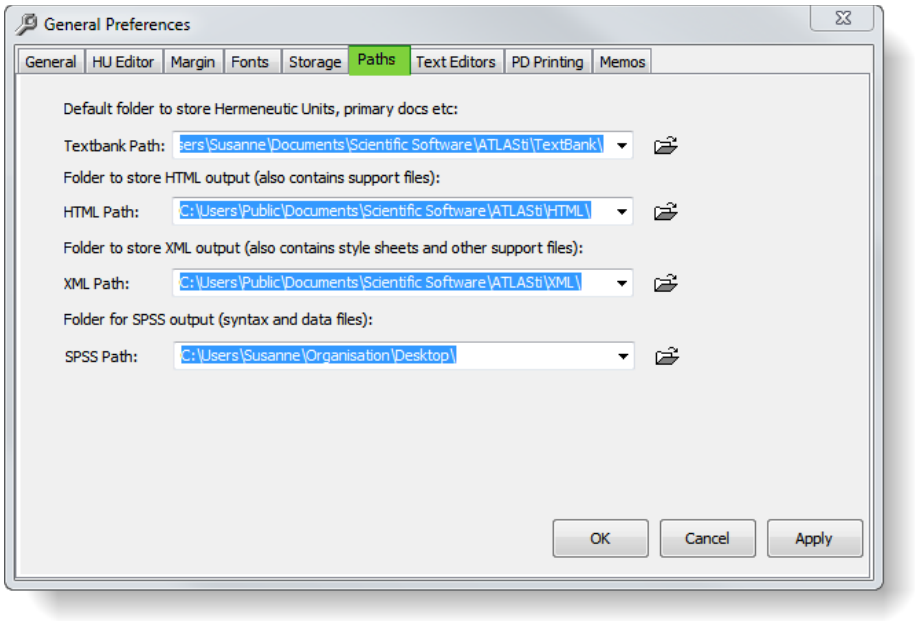


Figure 381: General Preferences window: tab Paths

Textbank Path

The Textbank folder is a location that is provided by ATLAS.ti as a repository for storing your HU files, and as an optional location for storing your data files if you work with linked rather than managed documents. See user manual ATLAS.ti version 6 for more detail on working with linked documents.

HTML Path

Specifies the path to which HTML files are saved and where HTML support files (e.g., style sheets) are located.

XML Path

Specifies the path to which XML output is saved and where all style sheets and support files are located.

SPSS Path

Specifies the path to which syntax and data files related to the SPSS output are stored.

Tab: Text-Editors

The settings of this section affect the behavior and appearance of the editors used for displaying and writing comments and memos, and for the PD pane when displaying text documents.

The following options can be set for the text editors and for the PD pane independently:

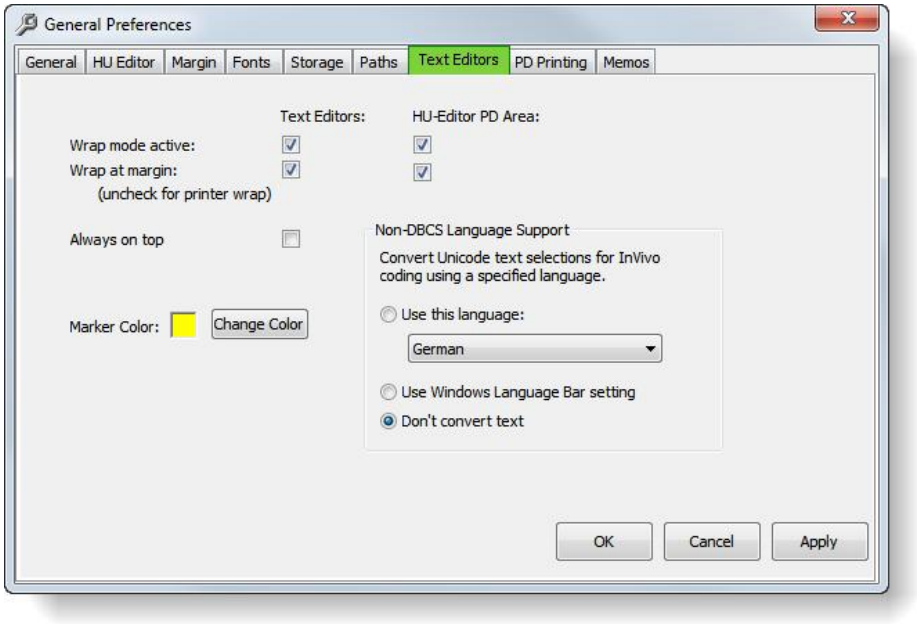


Figure 382: General Preferences window: tab Text Editors

Wrap mode active

If checked, line wrapping occurs as selected in the following option:

Wrap at margin

If wrap mode is activated, this option defines wrap in more detail. If checked, text is wrapped at the current right border of the text pane or the HU-Editor pane. If unchecked, wrap is calculated for the usable page width for the currently selected printer.

Always on top

When checked, the editors will float on top of all other windows. This option can be individually set in the editor itself.

Marker Color

You can mark selected text passages – when working on editable text – similar to using a highlighter on paper. However, unlike the non-destructive temporary selection and highlighting of text when displaying a quotation, this option actually modifies the text.

Click **Change Color** to select a different marker color.

Non-DBCS Language Support

The user can specify the language encoding. This becomes necessary if the language of the document differs from the language of the Windows installation. However, an appropriate font still needs to be chosen. For general information on this issue consult chapter "Language Settings."

Use this Language: Permanently selects an appropriate code page matching the character set used in your documents (e.g., 932 for Japanese text).

Use Windows Language for Bar setting: Activate this option to use the Windows language settings.

The Language bar provides a quick way to change the input language or keyboard layout from your desktop. You usually find it minimized at the bottom left-hand side of your task bar. However, it could also be located elsewhere on your desktop.

Don't Convert text: Do not use any code page other than the default code page (0). Extracted text is considered native. This is the default setting.

Tab: PD Printing

The settings of this section affect the appearance of the document that is printed when selecting the option **Documents/Output/Print with margin.**

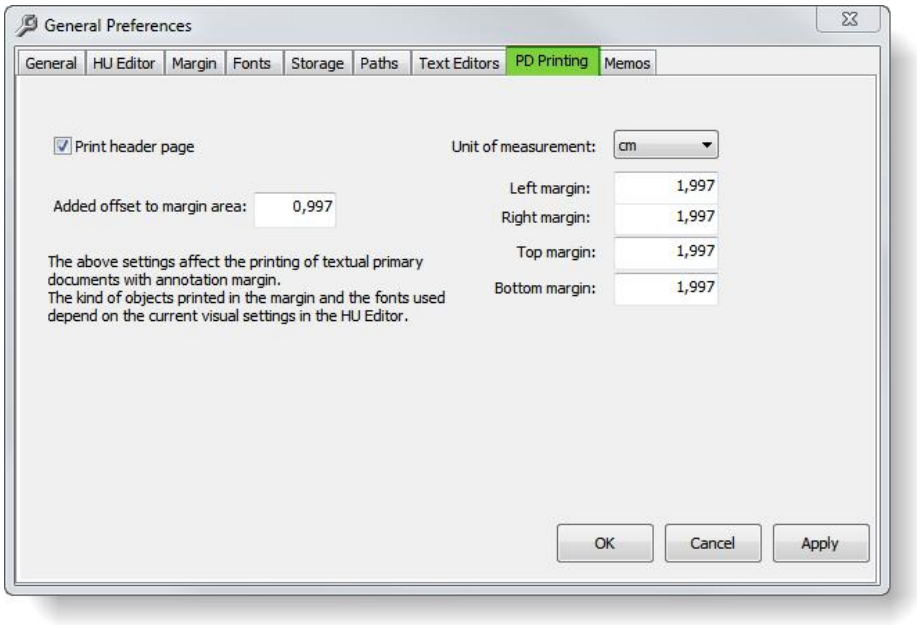


Figure 383: General Preferences window: tab PD Printing

Print header page

If checked, creates a header info page for the primary document.

Units of measurement

You may select from inches, mm, cm, pts and picas.

Left, right, top, and bottom margin: Change the settings for the page margins.

Added offset to margin area

Adds designated amount of space between the text document and the margin area.

Tab: Memos

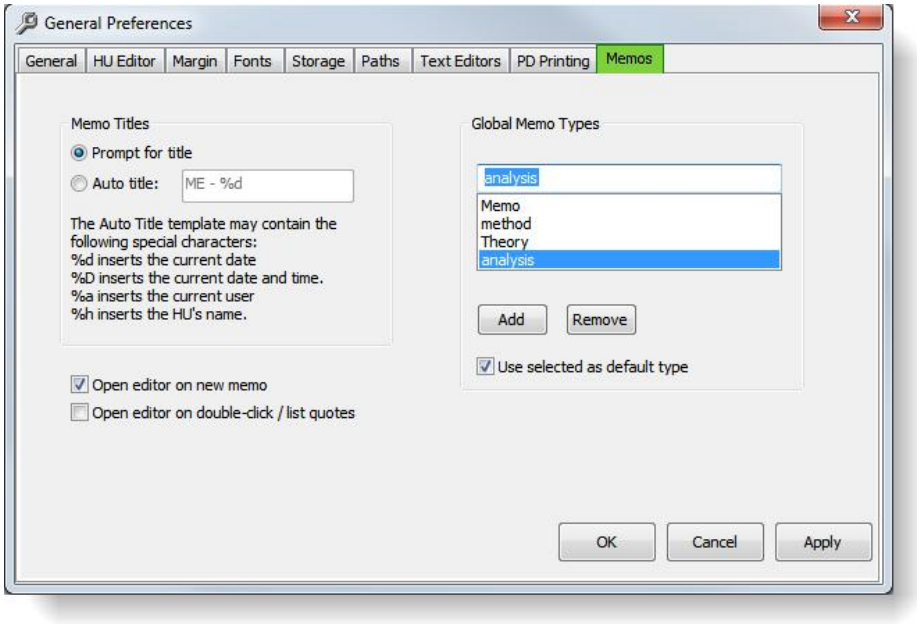


Figure 384: General Preferences window: tab Memos

Prompt for title

Allows you to enter a title manually for a newly created memo (recommended).

Auto title

Automatically generates a memo title using the given template. The template can be edited. Several macro variables can be used in the template:

%d inserts the current date

%D inserts date and time

%a inserts the current user

%h inserts the HU's name

Open editor on new memo

When a memo is created, a memo editor is opened.

Open editor on double-click/list quotes

Specifies the double-click behavior for memos in the Memo Manager: You can choose either to open the editor or to list the quotations linked to a memo. The recommendation is to deactivate this option as you have easy access to the memo editor by clicking on the editor button in the tool bar.

Global Memo Types

Specify the default type used when creating a memo. Also allows modifying, adding, and removing memo types. For details see "Memo Types."

To Set Network Preferences

Unlike settings modified using the Network Editor's menu commands, several options can be made permanent using the network preferences dialog. Note that most modifications are not immediately displayed in the Network Editors. Close and reopen a Network Editor to see these changes.

For all options that were already described in the Network Editor's menu description, there will only be a reference.

The Network Editor preferences are activated either from the HU editor's **Networks / Preferences** or from the Network Editor's **Specials / Preferences** menu.

Tab: General

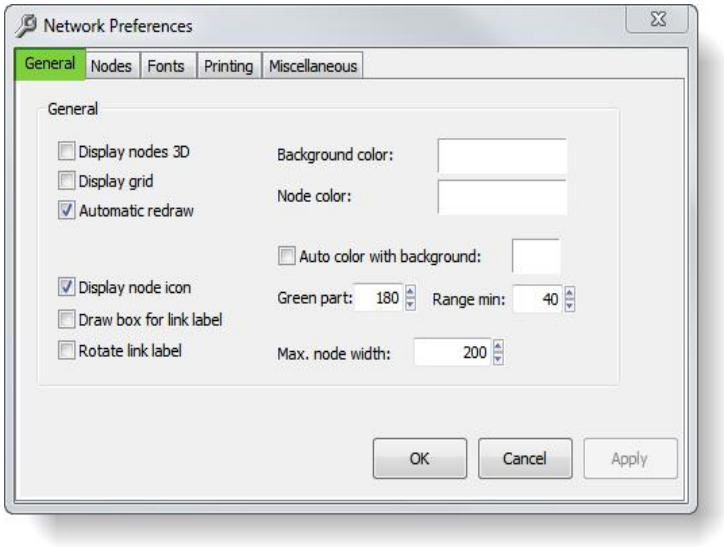


Figure 385: Network Preferences: tab General

Display nodes 3D

Display nodes as simple boxes with a 3-D border. Uncheck for a box with a drop shadow.

Display grid

Overlays the network view with a grid to help with manual placement of nodes. As the grid is colored light gray, you need to use a different background color when using this feature.

Automatic redraw (default)

If disabled, the network editor will redraw its contents only when forcing a repaint via **Display / Refresh Display** (or by pressing F5). If the automatic redraw does not work properly (i.e., certain things are not displayed correctly), press F5.

Display node icon

Display a type specific icon for the nodes.

Draw box for link label

Switches between plain text display and boxed display of link labels.

Rotated link label

Displays labels rotated, e.g., alongside the link between two objects.

Background color

Sets the color for the network editor's canvas.

Node color

Sets the color for (code) nodes.

Auto color with background

If activating this option, the background color is also used in auto color mode (which is set to white by default).

Green part

Customizes the auto color procedure.

Range min

Customizes the auto color procedure.

Max node width

The maximum horizontal size in pixels within which the node's text is formatted.

Tab: Nodes

This page allows you to define the default settings for the display of nodes.

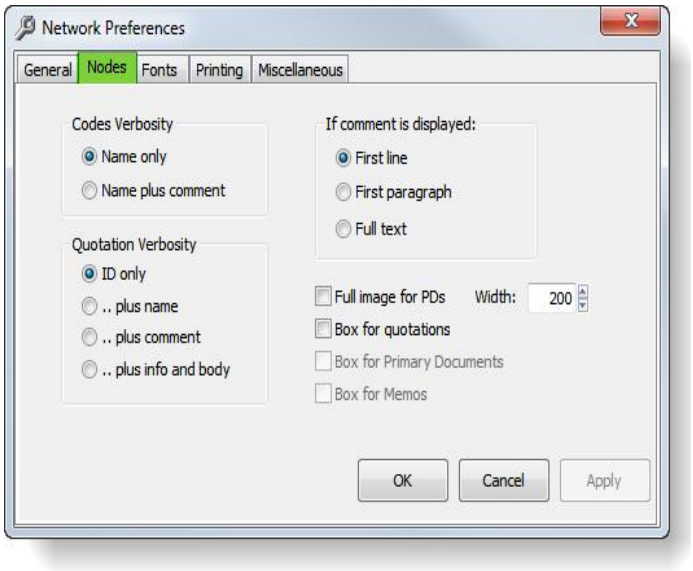


Figure 386: Network Preferences: tab Nodes

Codes Verbosity

Controls the length of the node name displayed for codes (and memos). You have the option to display the *name only*, or the *name plus comment*. If "Name plus comment" is selected, you may also define how much of the comment should be displayed: First line, first paragraph, or the full text of the comment (see options to the right).

Quotation verbosity

Allows four increasing amounts of information to be displayed.

If comment is displayed

Select how much text of a comment should be displayed: first line, first paragraph or the full text.

Full image for PDs

Displays graphical PDs as small images, also called "thumbnails."
In addition, you can set the horizontal width in pixels for all displayed graphical PD thumbnails.

Box for quotations / primary Documents / Memos

Display quotation, primary document and memo nodes inside a bounding box.

Tab: Fonts

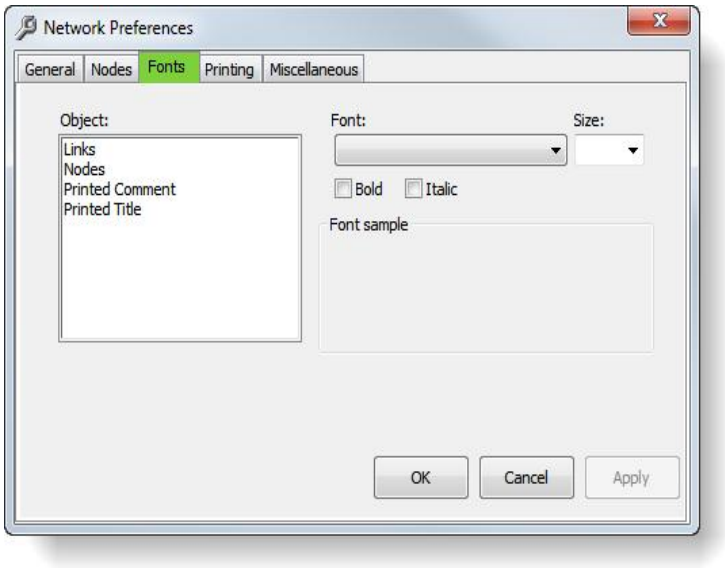


Figure 387: Network Preferences: tab Fonts

You can globally specify a font for all nodes and links. In addition, you can choose how the network title and comment should look when outputting a network. Font changes for nodes and links are visible the next time you open a Network View.

Tab: Printing

Network Views are printed as bitmaps. You have the following options: to include the title and comment (info page), to draw a border around the Network View, and to print or ignore the background color. Furthermore you can scale the Network View down or up to fit it to the page size. The margin settings can also be set to suit individual preferences.

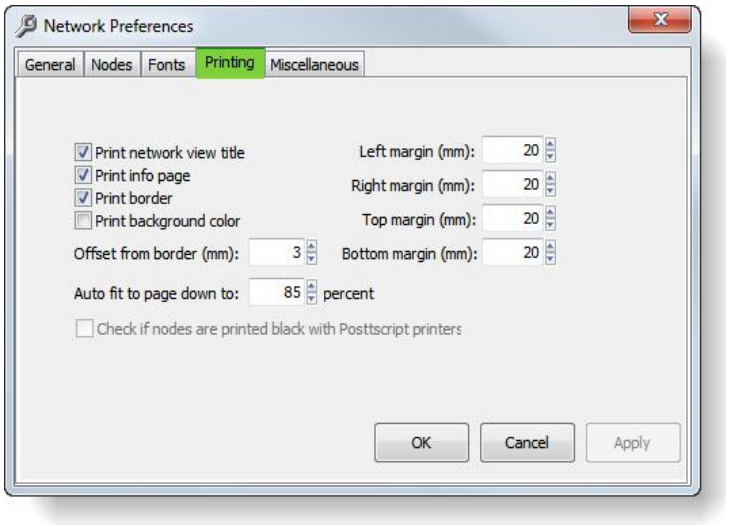


Figure 388: Network Preferences: tab Printing

Tab: Miscellaneous

When loading an HU, all relations used inside the HU are imported. This is comparable to word processors that use styles. For relations imported by loading another HU, the default strategy is to not overwrite already loaded relations with the same ID ("**Don't touch existing relations**").

Example: If your standard set of relations as defined in the file default.rel contains a relation ISA with line width 2, and the HU just loaded contains the same relation but defined with width 1, all Network Views (of any HU loaded) will display any ISA link with a width of 2. Furthermore, when you save any of the HUs, their original relational definitions are exchanged with the current ones.

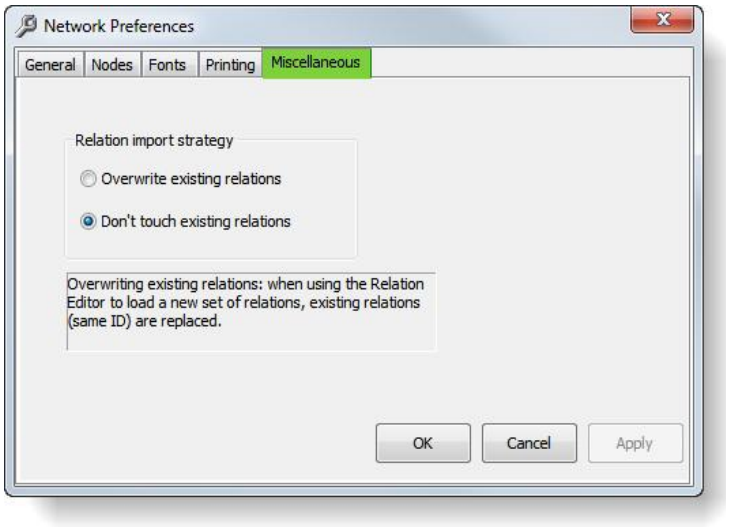


Figure 389: Network Preferences: Miscellaneous

Choosing the option "**Overwrite existing relations**" does the following: If a new HU is opened, all already loaded relations that use the same ID as relations in the newly opened HU are replaced. This changes the characteristics of the links in the HU loaded previously. Although this is complicated , problems rarely occur because different relations with the same name are not very common in everyday work.

To Set HTML Preferences

A number of options can be set to customize the appearance of the generated HTML document.

To set HTML preferences, select **Tools / Preferences / HTML Preferences** from the main menu.

Tab: General

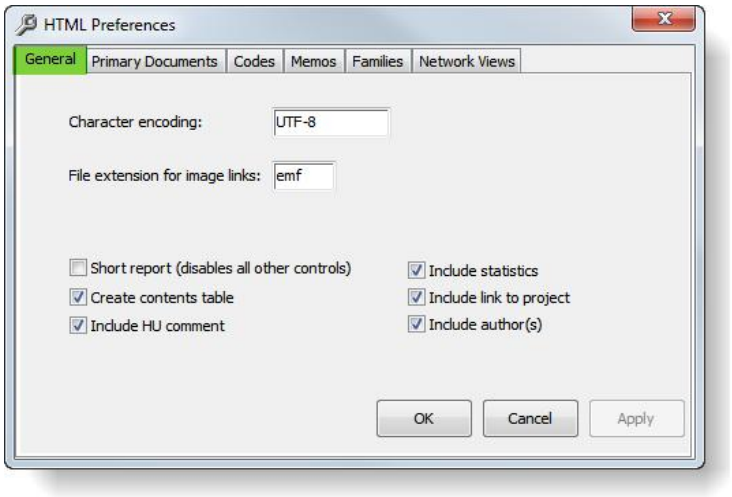


Figure 390: HTML Preferences: tab General

Character Encoding

Controls interpretation of characters encoded with values beyond 7-bit ASCII. The default is UTF-8. UTF-8 has become the dominant character encoding for the World-Wide Web, accounting for more than half of all Web pages.

File extension for image links

If you want to include network views in HTML output, you need to save them as graphic files to the ATLAS.ti HTML folder (see "General Preferences Setting Tab: Paths," and "To insert Network View images into HTML files."

Short Report

Only the name, author, date, and commentary of the HU become part of the HTML document. All other setup options are disabled.

Create contents table

A list of all sections in the HTML page is created. All sections can be jumped to from the contents table.

Include HU comment

Includes the HU's comment in italics.

Include statistics

A short numerical summary of the main objects included in the HU is created.

Include link to project

A link is included that allows the reader of the HTML page download the HU itself. If this link is activated, a copy bundle version of the project must be provided and copied to the location of the HTML page.

Include author(s)

Includes the name of the HU's author and co-authors, if any.

Tab: Primary Docs

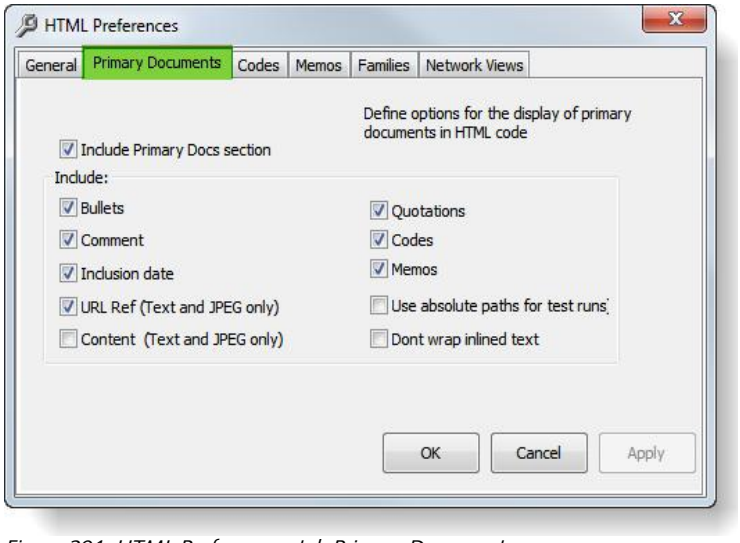


Figure 391: HTML Preferences: tab Primary Documents

Include Primary Docs section

Check this box if you want to include information about the PDs.

Bullets: Displays a specific icon with every PD description.

Comment: Includes the PD's comment.

Inclusion date: Includes the date the PD was assigned to the HU.

URL Reference (Text and JPEG only): Includes a clickable link to the PD file. Note that if the files are plain ASCII, JPEG, or of another suitable file type, PDs can be displayed by most web browsers without additional plug-ins.

Content (Text and JPEG only): Displays the contents of the PDs within the created HTML document itself. The same restrictions for file types apply as in "Reference to PD". Note that the size of the web page increases significantly with the in-lined inclusion of PDs.

Quotations: Only the number of quotations is included.

Codes: Displays the codes used for coding the PD.

Memos: Displays memos (titles) used for the PD.

Use absolute paths for test runs

Check this option when testing the web page on your local computer. Absolute paths to all PDs are included in the links created. Make sure to uncheck this box when you are creating the final page to be uploaded to a web server. When unchecked, all paths will be removed, assuming that the PD files are then located in the same location as the web page itself. Without this option, all PDs accessed from the web page created would have to be copied to the HTML directory to be displayed properly when needed.

Don't wrap inlined text

Use the line breaks of the original text. If unchecked, line breaks are removed in order to let the HTML browser apply dynamic wrapping.

Tab: Codes

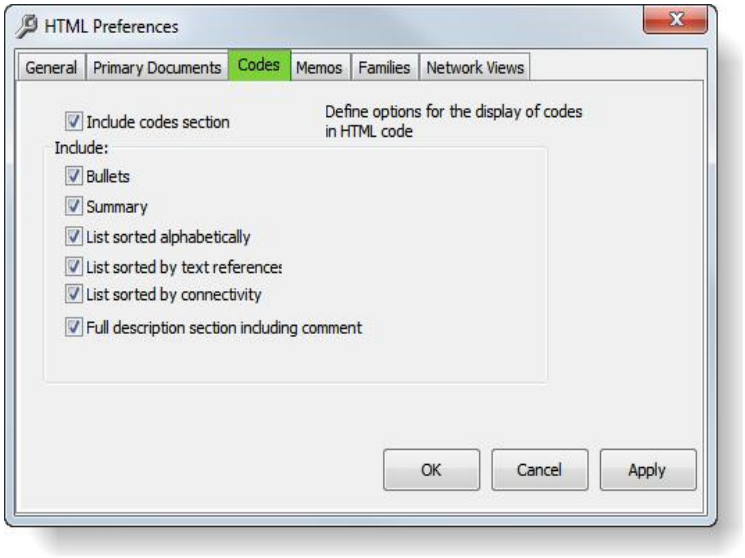


Figure 392: HTML Preferences: tab Codes

Include codes section

Includes information about codes.

Bullets: Displays a specific icon with every code description.

Summary: Lists all codes including the label, groundedness, and density count.

List sorted by:

- includes scrollable lists that sort the codes *alphabetically*
- includes scrollable lists that sort the codes by number of *text references,* i.e., groundedness.
- includes scrollable lists that sort the codes *connectivity*, i.e. number of code neighbors (= density).

Full description section including comments: All codes that have comments are listed in an extra section. The summary has links to these descriptions for all commented codes.

Tab: Memos

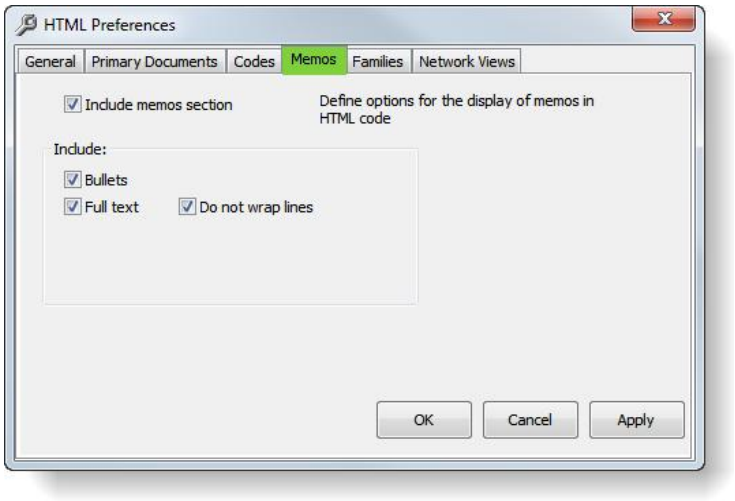


Figure 393: HTML Preferences: tab Memos

Include memos section

Includes information about memos.

Bullets: Displays the memo icon with every memo description.

Full text: Includes the complete text body.

Do not wrap lines: Keeps the line/paragraph structure of the memo intact.

Tab: Families

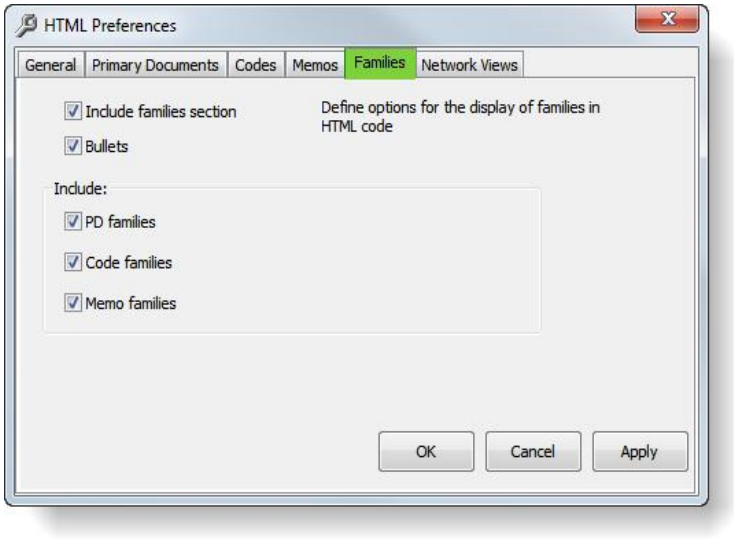


Figure 394: HTML Preferences: tab Families

Include families section

Includes information about families.

Bullets: Displays the family icon with every family description.

Include (3 options):
- PD families
- code families
- memo families

Tab: Network Views

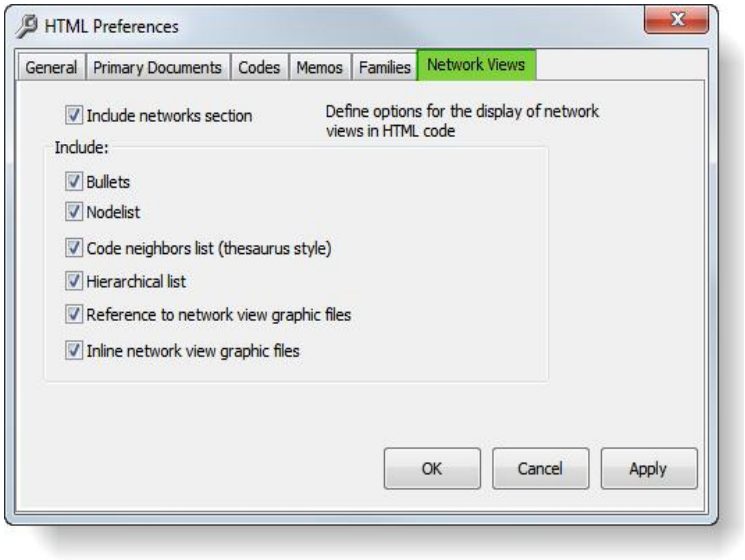


Figure 395: HTML Preferences: tab Network Views

Include networks section

Includes information about Network Views.

Bullets: Displays a specific icon with every Network View description.

Node list: Includes a textual description of every node.

Code neighbors list: Textual description of the complete network structure in a "thesaurus style" format: for every alphabetically listed node, displays its direct neighbors.

Hierarchical list: Converts the network into a hierarchy. Identifies the root objects and displays an indented "forest" of trees.

Reference to Network View graphic files: Includes links to the graphic files created from the Network Views. These files have to be created manually. A common file format is Windows Enhanced Metafile (emf). See "Save Network View as Graphic File."

Inline Network View graphic files: As above, but displays the graphic images in the web page itself.

To Set Google Earth Preferences

To set Google Earth preferences, select **Tools / Preferences / Google Earth Preferences** from the main menu.

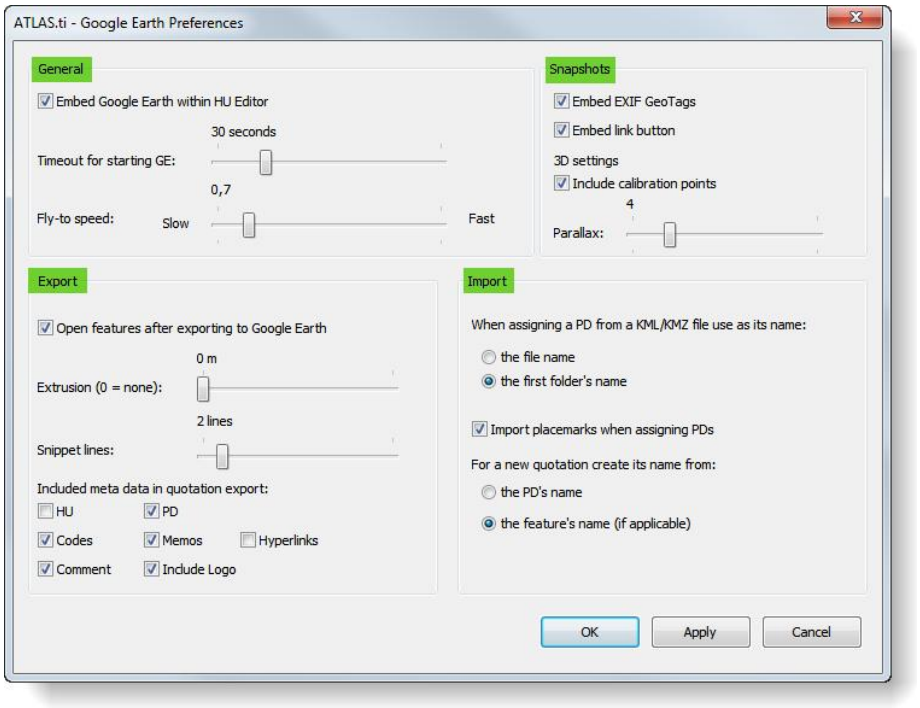


Figure 396: Google Earth Preferences

Tab: General

Embed GoogleEarth within HU Editor

Toogle between embedding GE in to the HU editor or diplaying GE in a separate window.

Timeout for starting

Increase this value if it takes a longer time for GE to start and ATLAS.ti does not position to a camera view.

Fly-to-speed

Adjust the speed that is used to travel between two quotations.

Tab: Snapshots

Decide which tags, buttons and settings should be included when creating a GE snapshot from a GE document.

Tab: Export

Open features after Exporting to GoogleEarth

When creating a new quotation, you need to export it to GE before you can see it (see “Activating Google Earth quotations). When you activate this feature, the Temporary Places tree is shown showing the HU and the quotations as branches.

Extrusion

Set the distance between the place mark icon and the ground in meter.

Snippet lines

Set the number of lines that are displayed for the quotation comment in the Google Earth Places Panel.

Include meta data in quotation export

Decide which meta information for a quote should be transferred and displayed in Google Earth.

Tab: Import

Import file or folder name for KML / KMZ files

Decide which default PD name should be use for your KML and KMZ files.

Import placemarks when assigning Pds

Select whether you want to import placemarks when assigning a KML or KMZ file as primary document.

Default name for quotation

Decide which default name should be used for GE quotations: the name of the primary document or the name of a feature, if available.

To Set PDF Preferences

To set PDF preferences, select **Tools / Preferences / PDF Preferences** from the main menu.

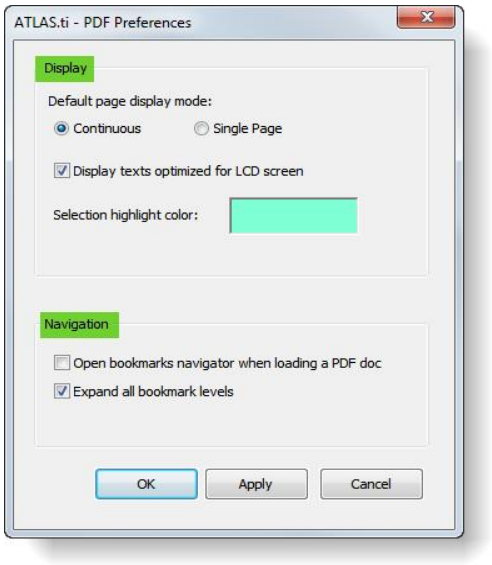


Figure 397: PDF Preferences

Tab: Display

Default page display mode: Choose between continuous and single page mode.

Display text optimized for LCD screen: This smoothes text aso it displays better on LCD screens and laptops.

Selection highlight color: When highlighting sections in a PDF document, the color shown in the box is used as highlighting color. Select a different color by clicking on the box.

Tab: Navigation

Open bookmarks navigator when loading a PDF doc: If you have documents that contain bookmarks, they can be displayed in the navigation pane on the right-hand of the HU Editor.

Expand all bookmark levels: Select to show all bookmark levels.

Figure 398: Display of bookmarks in side panel

To Set Live Update Preferences

The default is set to check for updates when starting the software. You are alerted if new service packs are available.

Installing service packs is only possible if the user has administrative rights to the computer and, under Vista / Windows 7 & 8, if ATLAS.ti is explicitly run as administrator (see below).

If a user does not have administrative rights, it is best to deactivate the automatic check and ask your administrator from time to time to update ATLAS.ti for you.

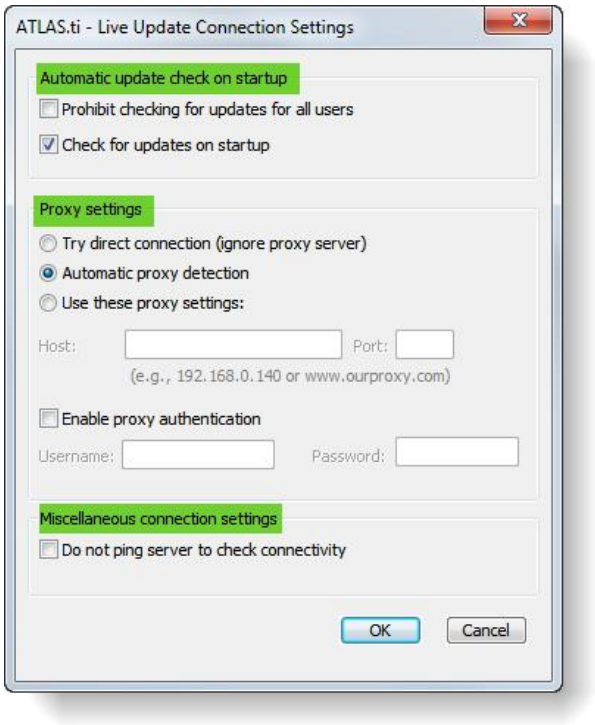


Figure 399: Live Update Connection Settings

A three-months interval is recommended.

Tab: Automatic Update Check On Startup

Prohibit checking for updates for all users: Select if you do not want ATLAS.ti to check for updates when starting.

Check for updates on startup (default): Every time you start ATLAS.ti, ATLAS.ti checks whether there are new service packs available and prompts you to update.

Tab: Proxy Settings

You can set a number of proxy settings. The default is for automatic proxy detection, but it is also possible to enter a host number and port number manually.

Tab: Miscellaneous Connection Settings

Do not ping server to check connectivity: Ping is a network program that sends short data packages ("echo requests") to a particular host and then listens to a response. Ping also measures the round trip time of a package---the time elapsed between when a package is sent and a response is received. Ping enables you to find out a server IP address and determines the accessibility of the server. If you do not want this, activate this option.

To Set The User Interface Language

Currently you can switch between the default language English, Spanish and German. Star Trek fans, try out Klingon!

To switch from the default language to Spanish or any other language, select **Tools / Preferences / Set User Interface Language Preferences**.

You need to restart ATLAS.ti for it to take effect. Click **OK**.

Figure 400: Set User Interface Language

Appendix

Useful Resources

The ATLAS.ti Website

http://www.atlasti.com

The ATLAS.ti website should be a regular place to visit. Here you will find important information such as video tutorials, additional documentation of various software features, workshop announcements, special service providers, and announcements of recent service packs and patches.

Quick Tour

http://quicktour.atlasti.com

To get started, we recommend to work your way through the Quick Tour. In about two hours you get an overview of the main functions and an idea on how to conduct an analysis with ATLAS.ti. When you are ready to start your own project, use the "Short Manual"(see below) as your continuing guide.

ATLAS.ti 7 – What's New

http://whatsnew.atlasti.com

This document is intended specifically for users who already have experience using the previous version, ATLAS.ti 6, and who are making the switch to the latest generation, in this case v.7.

Full Manual and "How To" Documents

http://manual.atlasti.com

Find information on network installation, tips and tricks and special instructions on how to work with specific type of documents.

Video tutorials

http://tutorials.atlasti.com

If you like to learn via video tutorials, we offer a range of short videos on the following topis: Features and Interface, Getting started on a project, Coding, Visualizing – Working with Network Views and Hyperlinks.

Library

http://library.atlasti.com

The library contains a list of white papers by various authors (mostly ATLAS.ti trainers and consultants) extracted from past newsletters. Submissions are always welcome.

Knowledge Base

http://kb.atlasti.com

Search the knowledge base for immediate questions you may have related to licenses, installation, update procedures, trouble shooting or use-related questions. A quick search may already provide the answer without having to dig for an answer in the full manual.

Social Media

YouTube

http://youtube.atlasti.com

You find a growing number of video tutorials on the ATLAS.ti YouTube channel. So far videos are available in English and Spanish.

https://www.youtube.com/user/ATLASticonference

Watch the presentations of the ATLAS.ti user conference 2013 on this special channel.

Facebook

http://facebook.atlasti.com

Stay updated with the latest news on product updates, special offers, new training materials, etc. by joining us on Facebook. We are also happy to hear from users via facebook. Stop by and let us know about your projects and experience with ATLAS.ti!

Twitter

http://twitter.atlasti.com

Follow us on Twitter for the most essential bits of information and announcements (version and service pack releases, special offers, training opportunities, etc.).

Newsroom

http://newsroom.atlasti.com

The newsroom aggregates all pertinent company news conveniently on a single platform. Press releases, articles and comments from the various ATLAS.ti profiles on social networking sites are agglomerated in real time. In addition, the newsroom lets you subscribe to available content via RSS so you're always up-to-date on what's going on with ATLAS.ti.

Publications

Friese, Susanne (2014, 2ed). Qualitative Data Analysis with ATLAS.ti. London: Sage.

Friese, Susanne & Ringmayr, Thomas (Eds). (2014). ATLAS.ti User Conference 2013 : Fostering Dialog on Qualitative Methods.. Online published on the Digital Repository of the Technische University Berlin:

http://nbn-resolving.de/urn:nbn:de:kobv:83-opus4-51577

The Help Menu

You can access a number of useful resources via the ATLAS.ti Help menu.

Menu Item: More Resources

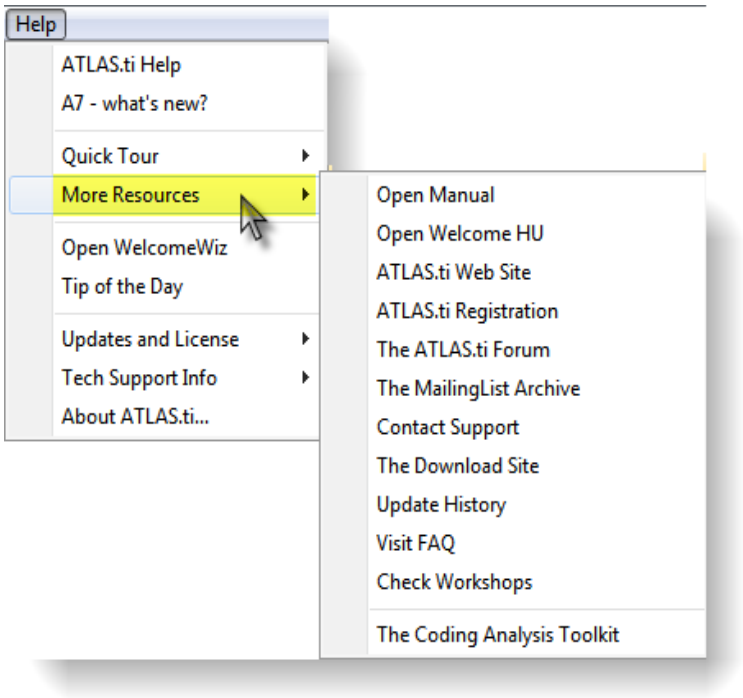


Figure 401: Accessing resources via the Help menu

The options provided via the More Resources sub menu may change over time reflecting the up-to-date status on documentations available. So it may be worthwhile to check this menu from time to time.

All options present links to internet web sites. Thus, you need to be online to access these resources. Apart from the Coding Analyis Toolkit (CAT), all other options are self-explanatory. Therefore, you find a brief introduction to CAT in the section "Calculating Inter-Coder Reliability using CAT."

Menu Item: Updates And License

All options related to updating and licensing have been subsumed here.

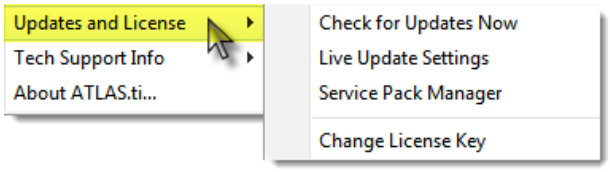


Figure 402: Update and License sub menu

Getting Support

http://support.atlasti.com

The easiest way to contact the Support Center is via the main menu option **Help / More Resources / Contact Support**. Or access the Support Center directly via the above URL.

From the categories provided, select the appropriate option so your request can be processed as quickly as possible.

Figure 403: List of support channels

Frequently Asked Questions

http://kb.atlasti.com

Frequently asked questions are collected in our knowledge base on our website.

To access the site directly from ATLAS.ti, select **Help / More Resources / Visit FAQ** from the HU editor's main menu. An active Internet connection is required to access this web page.

Forum

http://forum.atlasti.com

ATLAS.ti maintains various a large forum for peer-to-peer communication, i. e. for users to (virtually) meet, exchange experiences with the tool, share tips and

tricks, and discuss technical and methodological issues that arise with the use of the program.

Note that the forum is not an actual support channel but a place for the larger community to discuss issues of general interest in a publicly visible way. If you experience technical difficulties witth the program, please contact Support (see above) rather than using the forum. *Technical* advice by other users should always be treated with caution and is not always accurate. A competent diagnosis of technical problems can only be made by our support team after examining your actual installation.

Mailing List Archive

Like the forum, the mailing list is another tool for peer-to-peer discussion, advice, and tips.

The complete mailing list archive can be conveniently accessed via **Help / More Resources / The MailingList Archive.**

Reporting Bugs

Most errors that occur during the operation of ATLAS.ti are displayed and written to a special log file named ERROR.LOG. This text file is located in the user system directory.

The contents of this file can only be interpreted by the developers of the program and is of no use for others. If you file a bug report, you might be asked to send a system report including this file to a specified support e-mail address.

The error report contains the following:

- The ERROR.LOG file.
- The System Report (which you can view via **Help / Tech Support Info / Display System Report)**
- The user's configuration file USER.INI.
- The ATLAS.ti configuration file ATLAS.INI.
- The list of files in ATLAS.ti's program folder.
- The list of files in the user's system folder.

The information in the package contains technical information needed for the technical support personnel to analyze and respond to reported problems. Except for the content of the ERROR.LOG, the system report and two INI files/ No other file content is transferred.

To send an error report, from the main menu, select **Help / Tech Support Info / Create and Mail Report.**

A message informs you that the report has been created and which files it includes. Click OK.

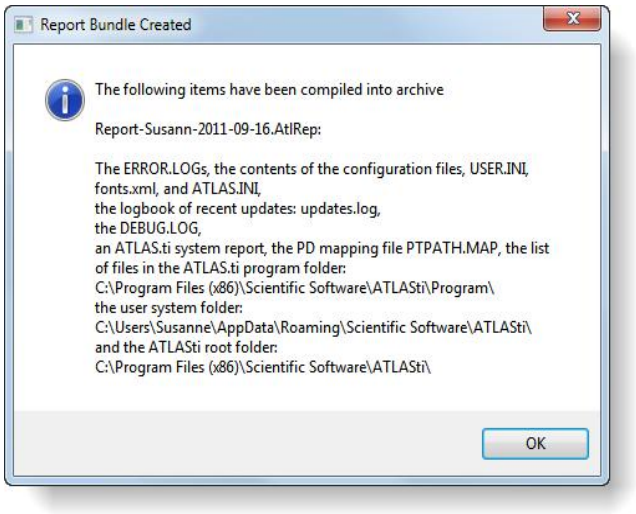

Report Bundle Created
The following items have been compiled into archive
Report-Susann-2011-09-16.AtlRep:
The ERROR.LOGs, the contents of the configuration files, USER.INI, fonts.xml, and ATLAS.INI,
the logbook of recent updates: updates.log,
the DEBUG.LOG,
an ATLAS.ti system report, the PD mapping file PTPATH.MAP, the list of files in the ATLAS.ti program folder:
C:\Program Files (x86)\Scientific Software\ATLASti\Program\
the user system folder:
C:\Users\Susanne\AppData\Roaming\Scientific Software\ATLASti\
and the ATLASti root folder:
C:\Program Files (x86)\Scientific Software\ATLASti\
OK

Figure 404: This message informs about about the files included in the bundle

ATLAS.ti launches your default email client and creates a new message addressed to an ATLAS.ti support address.

The report file (extension: ".AtlRep") should already be attached to the mail automatically. In cases where it isn't, please attach it manually; its exact location is indicated in the on-screen message.

The body of the message displays additional instructions.

Always include a description of the problem in your own words along with the report—the report file only"knows" about the state of your ATLAS.ti installation but not the circumstances of how a problem occurred. Describe in as much detail as necessary: What exactly were you doing when the problem occurred, what exactly happened, can the problem be reproduced and under what circumstances. In particular, also be sure to quote any error messages that you may see. Our support staff needs this information and will be happy to assist you once all the information is provided.

Make sure you have an active Internet connection and send the mail. Our support team will usually respond in less than 24 hours.

Service Packs & Patches – Live Update

Program updates (patches and service packs) are regularly available to update your installation. The program downloads and installs these service packs automatically.

Provided you have administrative rights to your computer (note: under VISTA and Windows 7, you need to explicitly run ATLAS.ti as administrator **in addition** to being logged in with full administrator rights in Windows), ATLAS.ti checks for new service packs upon start up (this requires an Internet connection). If a new service pack is found, you will be informed and asked to install it.

To Run The Software As Administrator (for VISTA And Windows 7 Users)

Right click on the program icon instead of double clicking. From the context menu, select the option (that appears in the language of your Windows system) **Run as Administrator**.

Alternatively, hold down the Ctrl+Shift key when you start ATLAS.ti.

A Windows message pops up that you need to confirm. Next, a message generated by ATLAS.ti pops up informing you that you run the software in administrative mode. Confirm this message as well.

Now you should have the necessary rights to install service packs (and also to create new user accounts).

Live Update Settings

You find the settings for the live update under **Help / Updates and License**

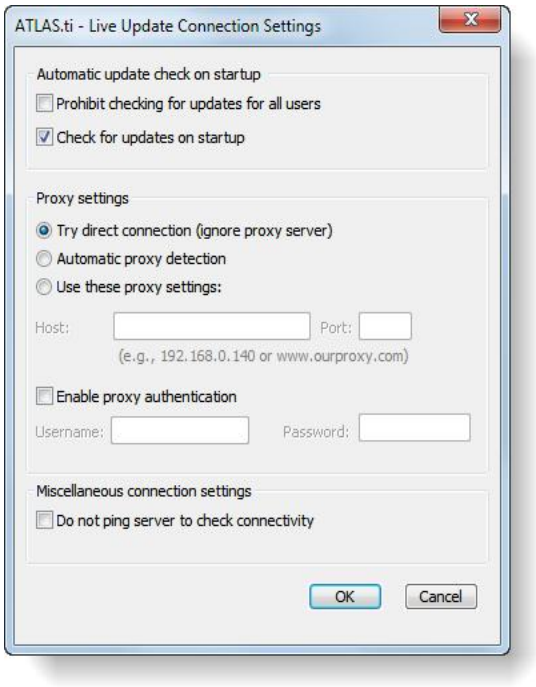


Figure 405: Live update settings

You have the option to prohibit the live update for instance for settings where users to not have administrative rights to the computer. Or if internet access is not always available. Then it can become quite annoying if ATLAS.ti starts the update request, just to find out after half a minute that no Internet access is available.

You can set the proxy settings or enter an authentication if needed.

We strongly recommend that you leave automatic update checking enabled (see Help menu). By always keeping ATLAS.ti up-to-date you avoid problems and benefit from ongoing continuous development of new tools and features. Also, in case you need to request assistance with a technical problem, our support team may not be able to assist you as quickly if your installation is severely out-of-date

Updating regularly is beneficial on all levels, so the adage "never change a running system" we sometimes hear is--at least as far as ATLAS.ti is concerned--a misguided superstition that will hamper you more than anything. If it wasn't for the many (free) service packs/updates we publish for each program generation, users would still not be able to perform a great many tasks that they hence have come to consider essential for their work, such as survey processing, XML stylesheets, smooth PDF, and many more. All of these were introduced in free service packs!

Manual Installation Of Service Packs

For those rare cases where an Internet connection is not available to use the comfortable live update procedure (usually users on highly secure networks), there is a workaround that lets you install the service packs manually.

This is not the recommended procedure for any installation where a normal live internet connection exists. Such users should rely on the much more convenient Live Update process.

The manual update procedure is as follows:

- Check your current version including the build number and the most recent version.
- As updates (service packs and patches) for ATLAS.ti are incremental you may need to download a number of files to update your installation. Ask our support to provide you will a direct link to download the appropriate files (**Help / More Resources / Support Center**).
- Download these files and then copy them into a special folder of your ATLAS.ti installation so that the service pack manager will find them. You can access the default folder via **Tools / Explorer / ServicePack Folder**.

After you have downloaded, transferred the files to the ATLAS.ti computer into the so called "Service Pack Folder":

- Start ATLAS.ti (if not already opened)
- Launch the Service Pack Manager while holding the **SHIFT** key (!): **Help / Update and License/ Service Pack Manager**.

Holding down the SHIFT key prevents the Service Pack Manager from trying to connect to our server.

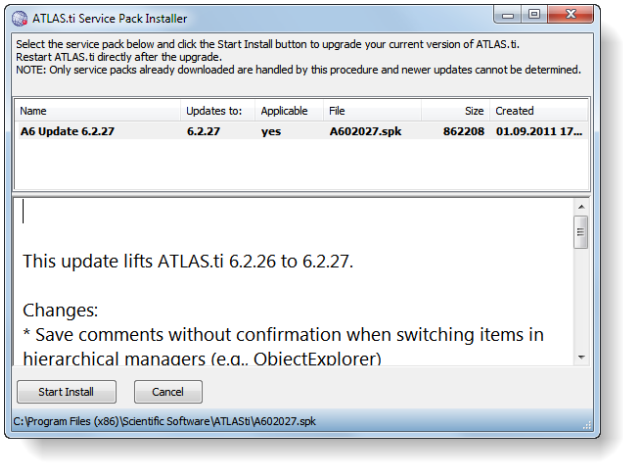


Figure 406: The Service Pack Installer window

The update file(s) (*.spk) should be displayed.

Click **Install** to proceed and follow the instructions on your screen.

If multiple updates need to be installed, you may have to repeat the procedure.

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